PB-218 012

STATEMENT ON WATER QUALITY MANAGEMENT STATE OF CONNECTICUT AND MASSACHUSETTS PORTION OF HOUSATONIC, CONNECTICUT, AND THAMES RIVER BASINS

Public Health Service
Boston, Massachusetts

4 October 1963

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STATEMENT
ON
WATER QUALITY MANAGEMENT
STATES OF CONNECTICUT AND MASSACHUSETTS
PORTION OF THAMES, CONNECTICUT, AND HOUSATONIC RIVER BASINS

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Water Supply and Pollution Control Program
Public Health Service
Department of Health, Education, and Welfare
Region I
Boston, Massachusetts

STATEMENT
ON
WATER QUALITY MANAGEMENT
STATE OF CONNECTICUT
AND MASSACHUSETTS PORTION OF
HOUSATONIC, CONNECTICUT, AND THAMES RIVER BASINS

by
Division of Water Supply and Pollution Control
Public Health Service
U. S. Department of Health, Education, and Welfare
Region I
Boston, Massachusetts

Presented before the
Natural Resources and Power Subcommittee of the
House Committee on Government Operations
Hartford, Connecticut
October 4, 1963

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*STATEMENT
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WATER QUALITY MANAGEMENT
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Water Supply and Pollution Control Program
Public Health Service
U.S. Department of Health, Education, and Welfare
Region I
Boston, Massachusetts

INTRODUCTION

This report presents information on the status of water quality management in the Housatonic, Connecticut, and Thames River Basins and their tributaries in the States of Connecticut and Massachusetts. A limited amount of data is included for the remaining area of the State of Connecticut. Data has been assembled by the Water Supply and Pollution Control Program, Public Health Service, U.S. Department of Health, Education, and Welfare, from its files and thru the cooperation of the Connecticut Water Resources Commission, the Massachusetts Department of Public Health, and the New England Interstate Water Pollution Control Commission.

The Water Supply and Pollution Control Program of Region I is operated under the authority and within the framework provided in the Federal Water Pollution Control Act, as amended by P.L. 87-88. The program was transferred from Region II, New York to the Boston Office and began with a Regional Program Director and a secretary in July 1962. While the Boston staff of 17 persons is essentially complete for routine operations, no more than one-half have been employed for longer than six months.

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* Presented before the Natural Resources and Power Subcommittee of the House Committee on Government Operations at Hartford, Connecticut on October 4, 1963.

By virtue of a Memorandum of Agreement between the Department of Army and Department of Health, Education, and Welfare relative to the Water Supply Act of 1958, the Water Supply and Pollution Control Program provides consulation to the Corps of Engineers on the future needs and value of storage of water for municipal and industrial purposes in multipurpose projects. Field coordination of this work is with the New England Division of the Corps of Engineers located in Waltham, Massachusetts.

Interagency review of Federal project plans and reports is coordinated at Washington Division Headquarters. Detailed review is accomplished at the Regional Office field level where consideration is given to the effects on water quality, water supply, and public health. Many discussions and much planning between agencies is accomplished at the field level before projects reach their final design stage. Comments have been submitted on 88 of 119 Corps of Engineers and Soil Conservation Service projects.

The data presented with this statement has been obtained through cooperation of State and interstate agencies with Public Health Service. Specific sources of this information were records of the national water quality network stations (two on the Connecticut River in Massachusetts and Connecticut), wastes and water facilities inventories, interagency review of Federal projects, and reports on State-operated projects. The New England-New York Interagency Committee Report written under the guidance of the Army Corps of Engineers and dated 1955 has the most complete

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information available on the inventory and use of New England's water resources. These data, which need updating, still serve as a guide in the absence of more up-to-date information. Data on water and waste sources is being updated by regular Department of Health, Education, and Welfare programs. Following the 1955 report, a permanent Northeastern Resources Committee with both State and Federal representation was chartered under the Inter-Agency Committee on Water Resources (ICWR) in Washington. The Committee serves as a forum for discussion and exchange of information.

A comprehensive water quality management program of the Public Health Service in cooperation with State and Federal agencies under the provisions of the Federal Water Pollution Control Act will update existing information and provide missing data for a more complete evaluation of water quality problems. The development of such a program for the New England River Basins is proposed by the Department of Health, Education, and Welfare and funds for this purpose were contained in the President's budget request for fiscal year 1964.

DESCRIPTION OF AREA

1. Connecticut

The State of Connecticut comprises 5,009 square miles, including 110 square miles of water surface. Its coastline is 96 miles in length.

According to the Bureau of Census, Connecticut's 1960 population was 2,535,234, an increase of 26.3 per cent between 1950 and 1960. This rate of growth exceeded the national average of 18.5 per cent and was more than double the rate of the next highest New England state.

The resources of the state include an abundance of water, fertile agricultural valleys, and limited amounts of minerals and forests. Approximately 50,000 acres of oyster production beds, primarily seed oysters, occur along the coasts. Commercial fishing supports a million dollar per year fisheries industry.

Employment in the area is primarily in manufacturing, services, transportation, and agriculture. Approximately 42 per cent of the persons employed are in the manufacturing industry. This industry includes machinery, fabricated metals, transportation equipment, electrical machinery, and primary metals. Farm products include milk, eggs, chickens, tobacco, hay, fruits, and vegetables.

The three river basins cutting through the three areas of Connecticut are the Housatonic, Connecticut, and Thames. These drain the Western Highland, Central Valley, and Eastern Highlands, respectively.

2. Housatonic River Basin

The 131 mile Housatonic River drains 1,950 square miles in south western Massachusetts, western Connecticut, and eastern New York. Its main tributaries are the Blackberry, Pomperaug, Candlewood Lake, Tenmile, Still, Shepaug, and Naugatuck Rivers.

It is a valuable source of power, provides water recreation, and serves municipalities, agriculture and industry as a source of water.

Major population centers in the basin are Pittsfield, Massachusetts; and Waterbury, Stratford, Danbury, and Torrington, Connecticut.

3. Connecticut River Basin

The Connecticut River with headwaters in New Hampshire flows 400 miles and drains an area of 11,200 square miles in four states, the largest and longest river basin in New England. It is navigable to the vicinity of Hartford, Connecticut with some smaller boats traveling to a rapids area near Windsor Locks. This Basin is heavily forested in its northern reaches and densely populated in the southern section. Connecticut River salmon are a rarity, but there are some indications that shad are on an increase.

The Connecticut River Valley in Connecticut averages about 20 miles in width. Tributaries in Connecticut and Massachusetts are the Chicopee, Miller, Manham, Farmington, Westfield, Deerfield, Salmon, and Scantic Rivers. The river is a source of power along both its main stem and its tributaries. Several of these tributaries also serve as a source of water for agriculture, municipalities, and industries. Beaches and resorts are located near its mouth as it empties into Long Island Sound at Saybrook.

Major population centers include six in Massachusetts and seven in Connecticut

These are:

MASSACHUSETTS	CONNECTICUT
Springfield	Hartford
Holyoke	New Britain
Chicopee	West Hartford
Northampton	Bristol
Westfield	Manchester
West Springfield	South Hartford
	Middletown

4. Thames River Basin

The Thames River, 67 miles in length, drains 1,474 square miles in southcentral Massachusetts, northwestern Rhode Island, and eastern Connecticut. Its tributaries consist of the Quinebaug, Willimantic, Natchaug, French, Shetucket, Yantic, and Hop Rivers. The main stem of the stream is navigable to Norwich, Connecticut. In addition to navigation, its waters are also used for power generation, municipalities, industry, and for recreation. Major towns are Norwich and New London, Connecticut

WATER USES

1. Housatonic River Basin

Rural domestic and agricultural water use in the 1955 NENYIAC Report for 66,800 persons was 5 million gallons per day (mgd). Irrigation water used at that time was estimated to be 2 mgd over an estimated 150 day frost-free period. Any significant increase of use of water for irrigation would significantly reduce available water in small watersheds during hot, dry weather.

In 1954 fifty-four public water systems supplied 61 mgd of which 24 mgd was for industrial use. An additional 174 mgd of fresh water and 217 mgd of brackish water used by industry from its own sources.

The present public water facilities supply 400,500 persons with 58 mgd of water. Forty-three supplies receive all or a portion of their water from surface sources. Connecticut has recently completed an up-te-date industrial water and waste inventory. According to this inventory, industries in Connecticut provide an additional 163 mgd for their own use.

Industrial sources include both ground and surface water. (See Appendix I)

At the time of writing of the NENYIAC Report recreation was a major industry of this river basin. Most prevelant were hunting, fishing, boating, skiing, swimming, and nature studies. Fishing was entirely of a recreational nature with no commercial utilization. At the mouth of the river a small amount of shellfish and marine finfish existed. Today, water quality is such that shellfish are obtained from this estuary without restriction.

Nine utility-owned and 45 privately-owned hydroelectric plants existed. The utility-owned plants had a total installed capacity of 116,100 kilowatts and the others had a capacity of 113,100 horsepower. Several possible sites for power development remained in this basin in 1955.

2. Connecticut River Basin (Conn. & Mass.)

An estimated 7 mgd of water was used for rural, domestic, and agricultural purposes according to the 1955 Report. Another estimated 1.0 to 1.5 mgd of irrigation water is used during the growing season in this river basin in Connecticut and Massachusetts. This total use by rural areas is small compared to that used by municipalities and industry.

Forty-three Connecticut municipalities and 61 Massachusetts municipalities, including Boston, provided 121 mgd of water from the Connecticut Basin to their citizens and industry in 1954. Of this total, industry used 51 mgd. Private industrial supplies accounted for another 864 mgd of water used. Sixty-two of the 114 municipal supplies used surface sources for a part or all of their water.

In 1963, forty-nine Connecticut municipalities and 72 Massachusetts municipalities have public water systems. Of these 121 supplies, 86 obtain some or all of their water from surface sources. The total number of persons served is 1,340,000, and they, along with industries in their municipalities, use 153 mgd. Industries in Connecticut provide an additional 26 mgd from both surface and ground water sources. (Appendix I)

All types of water based recreation occur in this basin. Boating is a very popular sport. Resort areas for both summer and winter recreation are found throughout the basin.

The Connecticut River is one of the most important commercial inland fish producing areas of New England. Shad are plentiful in its waters, particularly in Connecticut, and a sport fishery at Enfield, Connecticut provides excellent and popular recreational opportunities. However, water quality degradation has resulted in the closing, for taking of shellfish, that area of the estuary upstream from a line drawn from Breakwater Light House to the most southerly point of Griswold Point.

In 1955 there were over 200 water power developments in the Connecticut River Basin. Total aggregate capacity of these 65 utility-owned and 135 privately-owned plants was approximately 700,000 kilowatts. At the time of this inventory, eight additional hydropower sites appeared economically feasible of development. Two of these appeared desirable for multi-purpose use.

3. Thames River Basin

Farm water use for an estimated 62,000 persons in 1955 was 5 mgd. The amount used for irrigation was not known, but was considered to be insignificant compared to other uses.

Municipal and industrial water use in 1955 was 94 mgd. Of the 78 mgd used by industry, 7 mgd were from municipal systems. The 38 separate municipal systems were supplying 23 mgd to their customers.

On January 1, 1963 six Massachusetts and 31 Connecticut municipalities served a total population of 221,100 persons. Twenty-one of these communities use surface water for all or a portion of their supply. Total water use by municipalities is 24 mgd. Industries in the Connecticut portion of the Thames basin supply 31 mgd for their own needs. This is in addition to the amount of municipally supplied water used by industry. (See Appendix I)

The NENYIAC Report of 1955 states that "Commercial fish and wildlife values are relatively insignificant in this basin. There are some commercial shellfish and finfish values in the vicinity of the Thames River Estuary..." Today the entire estuary within and above a line from Seaside Point southeasterly to Rapid Rock then northeast to Pine Island and due north to the eastern extremity of Avery Point, is closed to the taking of shellfish because of pollution.

The 1955 study indicated the presence of 72 hydroelectric developments in the Thames River Basin. Forty-one of these had a total installed generating capacity of about 22,000 kilowatts. The other 31 plants were mechanical drive. Studies at that time indicated there were no other sites meeting the minimum conditions of economic justification. One reason for this lack of sites was the low flow in the river during periods of critical power demand.

SOURCES OF WASTES TO SURFACE WATERS

Appendices II - IV list the known municipalities, industries, and Federal installations discharging wastes to surface streams. The codes NE-2, NE-4, and NE-5, represent the Housatonic, Connecticut, and Thames River Basins respectively.

1. Federal Installations

There are presently 115 Federal installations within the three river basins being discussed. Fourteen mgd of wastes, including sanitary and all classes of industrial discharges, are generated by these installations. Of this total, 11.mgd (or 79%) is discharged to surface waters and 2.5 mgd. to the ground, both after receiving treatment, and 0.5 mgd (or 4%) is discharged to surface water without treatment. Of the 11.mgd treated discharge 7.6 mgd (or 68%) is cooling water. Of the 0.5 mgd untreated discharge, approximately 0.4 mgd is sanitary sewage discharged from the General Dynamics Plant at Groton, Connecticut and the balance is miscellaneous isolated small sources. The General Dynamics plant is listed in the Inventory of Waste Water Disposal Practices at Federal Installations as of December 1, 1960 but on December 6, 1962, was sold by the U.S. Navy to General Dynamics and is, therefore, no longer a Federal installation. Untreated wastes from Federal installations represent less than one per-cent of the total untreated wastes discharged to surface waters.

Status of specific Federal installations considered to be a possible pollution problem is tabulated in Appendix IV. Also included in Appendix IV is a summary table of waste treatment data for Federal installations.

2. Housatonic River Basin

In 1954, there were 74 separate sources of sewage from municipalities and industries and 128 separate sources of industrial wastes discharging to the waters of the Housatonic River Basin. The BOD population equivalent of the 74 sewage sources discharged to the streams was slightly less than 200,000 and that of half of the 60 organic wastes-industries was 207,000 P.E. Information about the other half of the organic wastes-industries was not available. The effect of wastes from 68 industries producing inorganic wastes was not known.

Of the 38 municipalities discharging wastes to streams in 1954, 6 provided primary and 8 secondary treatment. From the 1962 inventory of municipal wastes treatment facilities, it is found that of 40 municipalities discharging wastes to streams, 13 provide primary treatment, and 14 secondary treatment. Information now available indicates that an estimated BOD population equivalent of 340,000 now reaches the Housatonic waters compared to 200,000 P.E. in 1954.

Present data on industrial wastes in Massachusetts are very limited. However, it is known that 8 paper mills discharge wastes to the Housatonic River in Massachusetts. (See Appendix III)

In the Connecticut portion of the Housatonic Basin the wastes from 58 of 97 industrial sources were classified in the 1962 Connecticut Inventory of Industrial Wastes as being "a serious problem". These waste flows were estimated to average 74.mgd. Of the 58 industries, only 4 are known to provide treatment. Screens and settling are used to treat approximately 9,400,000 gallons at one plant, settling and neutralization to treat 1,800 gallons at a second, neutralization to treat 31,750 at a third, and filters totreat 123,000 gallons at a fourth plant. This amounts to approximately 12.8 per cent of the total of the flows classified as "serious problems." A breakdown of Connecticut industries by name, type, quantity, and nature of wastes, etc., is available in Appendix III.

Since the beginning of the Federal grants program for wastes treatment facilities construction in 1956, six Connecticut communities (Bethel, Morris, New Milford, Plymouth, Thomaston, Watertown Fire District) have received grant offers totaling $940,862 to build approximately $3,640,000 worth of facilities. Six grant offers have been made to three Massachusetts communities (Dalton, Lenox, Pittsfield) in the amount of $1,277,687 to build approximately $6,155,000 worth of facilities. Seven of these 12 projects are complete, three are under construction and two are in the grant offer stage.

3. Connecticut River Basin

In 1954, there were 495 separate significant sources of sewage and industrial wastes discharged to watercourses in the Connecticut River Basin. Sewage pollution came from 236 sources of which there were 184 municipalities, 10 resort hotels, two schools, two airfields, 14 institutions, and 24 industries. The BOD population equivalent discharged from these 236 sources was three quarters of a million.

The 259 sources of industrial waste pollution were caused by process wastes discharged from 48 paper and allied product mills, 46 food and food products plants, 43 textile mills, 62 fabricated metal products plants, 32 sawmill and wood products mills, six chemical plants, five primary metal processing plants, four leather and leather products plants, and 13 miscellaneous plants. The 154 organic sources of industrial wastes contributed 1.75 million BOD population equivalent. The 105 sources of predominently inorganic wastes contributedchemicals, oils, acids, solids, and toxic substances.

At the time of the NENYIAC Report, the above sources of pollution resulted in widespread pollution throughout the basin, but the largest amounts were in the lower third of the basin (Holyoke-Springfield, Massachusetts area to mouth) where population and industry were most concentrated. Of the 212 sources of sewage in 1954 (omitting 24 industries) only 44 had treatment. Three primary and one secondary plant operated in New Hampshire and Vermont. In the Connecticut and Massachusetts portion of the basin there were 21 primary and 19 secondary municipal wastes treatment plants.

From the 1962 Inventory of Municipal Wastes Treatment Facilities in the Massachusetts and Connecticut portion of this basin, it is found that of 95 municipalities discharging wastes to streams, 41 provide primary treatment and 26 secondary treatment. An estimated 624,000 BOD population equivalent is discharged from these municipal plants.

In 1962 in the Massachusetts portion of the Connecticut Basin, 44 industries were known to have separate discharges to streams in the Basin. Of these industries 27 had no waste treatment or other known inplant pollution control measures and the remaining 17 provided waste treatment or control by such methods as save-alls, flotation, lagoons, controlled flow, acid cracking, and phenol recovery. A breakdown of these industries by name, type, and treatment is available in Appendix III.

In the Connecticut portion of the Connecticut Basin, the waste from 39 of 99 industrial sources were classified in the 1962 Connecticut Inventory of Industrial Wastes as being "a serious problem". These waste flows were estimated to average some 11,250,000 gallons per day. Of the 39 industries, only one is known to provide any treatment and only screens are used in this case for the approximately 90,000 gpd involved. This amounts to less than one per cent of the total of the flows classified as "serious problems". BOD population equivalents are not available, but a breakdown of these industries by name, type, quantity, and nature of wastes, etc., is available in Appendix III.

Since 1956 when the Federal program for waste treatment facilities was initiated, five Connecticut communities and one hospital (Glastonbury, Rockville, Rocky Hill, Tariffville, Windsor Locks, Middletown Hospital) in the Connecticut River Basin have received grant offers totaling $915,441 to build facilities costing approximately $3,142,000. Twenty-nine grant offers have been made to 17 Massachusetts communities in the Connecticut River Basin (Agawam, E.Longmeadow, Easthampton, Greenfield, Hadley, Holyoke, Longmeadow, Ludlow, Montague, Northampton, Russell, South Hadley, Springfield, Sunderland, West Springfield, Warren, Ware) in the amount of $4,161,912 to build facilities costing approximately $11,250,000. Seventeen of these projects are complete, twelve are under construction, and six are in the grant offer stage.

3. Thames River Basin

In 1954, there were 135 separate sources of sewage and industrial wastes pollution in Thames River Basin. The Hop River was the only tributary not transporting pollution. Fifty-four of these sources were sanitary sewage which included 24 municipalities (26 sources), 22 industrial plants, 4 institutions, and 2 military establishments. Wastes with a BOD population equivalent of 113,500 were discharged to the streams from these fifty-four sources.

Of the 81 industrial sources of pollution, 54 were textile mills, 8 paper mills, 8 fabricated metal industries and 11 miscellaneous sources. The total BOD population equivalent of organic wastes was estimated at 340,000.

From the 1962 Inventory of Municipal Wastes Treatment Facilities, it is found that of 26 municipalities discharging wastes to streams, 16 provide primary and 5 secondary treatment. Information now available indicates that an estimated BOD population equivalent of 77,000 now reaches the Thames River Basin from these municipalities.

In 1962, the Massachusetts portion of the Thames Basin was known to have 12 separate industrial wastes discharges to streams in the Basin. Of these industries, three had no treatment and the remaining nine received treatment by lagoons, settling, and secondary treatment. A breakdown of these industries by name, type, and treatment is presented in Appendex III.

In the Connecticut portion of the Thames Basin, the wastes from 43 of 68 industrial sources discharging to Basin streams were classified in the 1962 Connecticut Inventory of Industrial Wastes as being a "serious problem". Waste flows from the 43 industries were estimated to average some 26 mgd. Only six are known to provide any treatment. Flotation was used to treat 5 mgd; settling, emulsion breaking, and flotation were used to treat 2 mgd; emulsion breaking was used to treat 1.4 mgd; settling was used to treat 0.7 mgd; and centrifugation was used to treat 19,000 gallons. This amounts to approximately 37 per cent of the total of the flows classified as "serious problems". BOD population equivalents are not available, but a breakdown of these industries by name, type, quantity, nature of wastes, etc., is available in Appendix III.

In the Thames River Basin since 1956, five grant offers have been made to four Connecticut communities (Danielson, Groton, Norwich, Willimantic) totaling $965,940 to build facilities costing approximately $3,321,000. One grant offer in the amount of $5,670 has been made to a Massachusetts community in this Basin (Dudley) to construct a facility costing $18,900.

Two of these six projects have been completed, three are under construction, and one is in the grant offer stage.

WATER QUALITY

1. Sources of Information

The U.S. Public Health Service maintains on the Connecticut River, two water quality monitoring stations in Connecticut and Massachusetts. One station near Northfield, Massachusetts is immediately below the point where the stream enters Massachusetts. The Connecticut station located at Enfield Dam, Connecticut, is immediately below the Massachusetts-Connecticut State line. Chemical, biological, physical, and radiological data are collected at these stations. Water quality data collected by the States of Massachusetts and Connecticut are available to the Public Health Service upon request. Massachusetts has been especially helpful in providing data that are available.

2. Housatonic River Basin

The Housatonic River at the Massachusetts-Connecticut State line has been classified a Class B stream. Data collected by the State of Massachusetts for the river near this point indicate that the water generally meets this classification. Dissolved oxygen values have been above 6 parts per million in the critical summer months. Coliform organisms have met the State limit of 2,400 per 100 milliliters with one exception of 3,900 per 100 milliliters.

In the headwaters of the Housatonic River near Pittsfield, Massachusetts, the water quality is poorer than at the border. Industrial discharges apparently result in the heaviest loading on the stream.

3. Connecticut River Basin

Quality of water in the Connecticut River as this stream enters Massachusetts is relatively good, except for bacteria. Dissolved oxygen ranges from approximately 7 parts per million (ppm) during the summer to 13 ppm during the cold months. Coliform organisms, the bacteria found in the intestines of warm-blooded animals, at this point are higher than desirable for bathing and other recreation use of the Connecticut River. Coliform values generally range between 1000 and 10,000 per 100 milliliters of water.

Radioactivity in the Connecticut River as it enters Massachusetts is not serious. Alpha radioactivity is negligible and dissolved beta radioactivity, commonly associated with fallout, ranges from 0 to 30 micro micro curies per liter. Physical characteristics of the water are good. Turbidity is generally very low while color ranges between 10 and 30 units.

As the Connecticut River flows south, it passes through highly populated and industrialized sections of Massachusetts, with associated effects on the water quality.

At the present time, the levels of coliform organisms entering Connecticut are higher than is desirable for recreational use of the stream. The median value of the 16 samples collected at the Public Health Service station this year was 28,500 per 100 milliliters. A 36-hour "around the clock" sampling program by the State of Massachusetts in September 1963 indicated a range from 29,000 to 550,000 coliform organisms per 100 milliliters in the Connecticut River at Agawam, Massachusetts shortly above the Massachusetts-Connecticut State line. (See figure on following page.)

Dissolved oxygen values at Enfield Dam during the past year have ranged from 4.7 ppm during the warm months to 13 ppm during the cold months.

Recent dissolved beta radioactivity values have ranged from 0 to 60 micro micro curies per liter. Alpha radioactivity was negligible. Turbidity and color values are low at the Connecticut-Massachusetts State line.

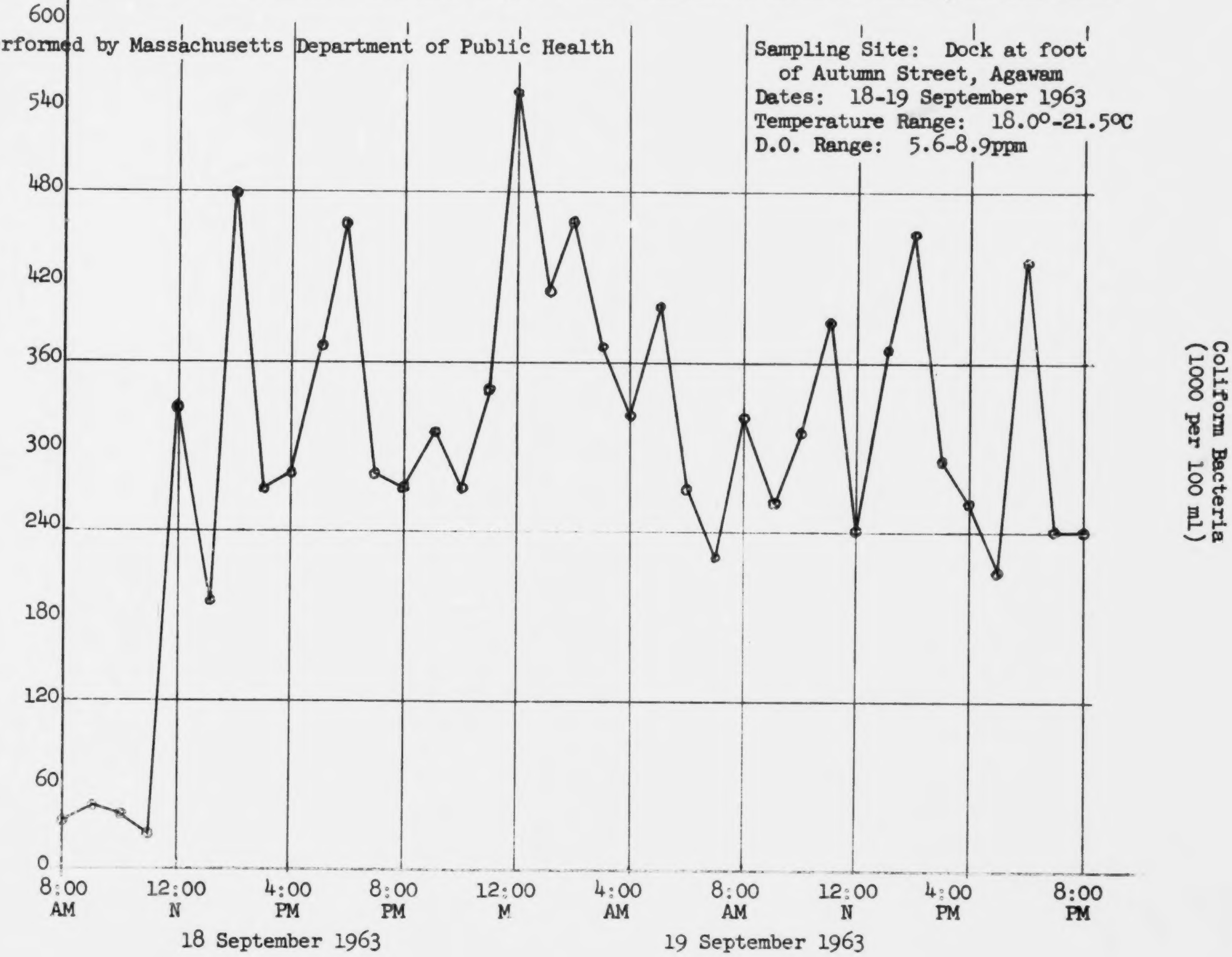
Near the mouth of the Connecticut River in Connecticut, the taking of shellfish is prohibited in all areas upstream of a line from the Breakwater Light House to the most southerly point of Griswold Point.

4. Thames River Basin

The Quinebaug River and the French River are the principal tributaries of the Thames River in Massachusetts. The Quinebaug River has been classified as Class C at the State line while the French River has been classified as Class D.

Color in the Quinebaug River is generally very high. This possibly is caused by dye wastes from textile mills or rouge grindings. Other water quality characteristics appear to be satisfactory at the State line. Local

36-HOUR BACTERIOLOGICAL SAMPLING STUDY OF THE CONNECTICUT RIVER AT AGAWAM, MASSACHUSETTS



Performed by Massachusetts Department of Public Health

Sampling Site: Dock at foot
of Autumn Street, Agawam
Dates: 18-19 September 1963
Temperature Range: 18.0°-21.5°C
D.O. Range: 5.6-8.9ppm

areas, immediately below industrial discharges upstream from State line in the Quinebaug River, have had pollution problems such as highly colored waters or a lack of dissolved oxygen.

Available data from the Massachusetts Department of Public Health indicate that the French River is in poor condition at the Massachusetts-Connecticut State line. Biochemical oxygen demand is high with the result that dissolved oxygen is relatively low. The number of coliform organisms in the stream is very high with many values being over 100,000 per 100 milliliters. Color in the stream is also a problem with values ranging from 40 to 80 units. The French River at the State line has been classified as Class D, "suitable for transportation of sewage and industrial wastes without nuisance, and for power, navigation, and certain industrial uses."

PROGRAMS OPERATING IN AREA

1. Federal

The Department of Health, Education, and Welfare operates four national water quality network stations in New England, three on the Connecticut River and one on the Merrimack River. Locations of stations on the Connecticut River are at Wilder, Vermont; Northfield, Massachusetts; and Enfield Dam, Connecticut; and at Lowell, Massachusetts, on the Merrimack River. Cooperating agencies are the Vermont Water Resources Commission, New England Power Company, New Hampshire Water Pollution Commission, Massachusetts Department of Public Health, Lowell, Massachusetts Water Department, Connecticut Light and Power Company, Connecticut Water Resources Commission, and Wesleyan University. Data is published each water year.

Municipal Water Facilities and Municipal Wastes Treatment Facilities Inventories of the Department of Health, Education, and Welfare are completed at 5-year intervals with the assistance of State health departments and State water pollution control agencies. The latest inventory on water was completed as of January 1, 1962, and one for wastes as of January 1, 1963.

Federal agencies participated in completing a wastes facilities inventory on Federal installations during 1962.

The Connecticut Water Resources Commission has, with assistance from the Public Health Service, completed an industrial wastes inventory for the State of Connecticut in 1962. The inventory is presently being printed by the Public Health Service. State-wide data from other States are not available.

The Army Corps of Engineers received funds in fiscal year 1963 to begin comprehensive planning for the Connecticut River and St. John River Basins' water resources. An economic base study is being initiated. The Department of Health, Education, and Welfare and other water resource agencies will be participating with the Corps of Engineers in this study. The Department of Health, Education, and Welfare in the President's fiscal year 1964 budget has funds to support its activities on comprehensive water quality planning in the New England River Basins.

The Division of Water Supply and Pollution Control carries out a program of scientific research in the causes and effects of pollution and methods of its control. This program, carried out at the Robert A. Taft Sanitary Engineering Center in Cincinnati over many years, has developed and is developing tools having broad application in the control of water pollution. Examples of a few of the many findings now being applied in New England include the following:

a. Development of the membrane filter technique for rapid bacteriological examination of water.

b. Procedure for detection and measurement of organic chemical compounds, including pesticides, first, by chromatographic separation and, second, by carbon adsorption techniques.

c. Sewage treatment techniques including, first, effects of substances of industrial origin, such as various cyanides and other organic materials, on standard treatment processes; second, design factors on low cost treatment, such as the stabilization pond; third, resistance of common viruses to disinfection by chlorine; and fourth, effectiveness of removal of viruses by soil in subsurface seepage systems.

A more complete "Statement on Direct Federal Water Pollution Research Activities" has been presented at the Washington hearings before this Committee by Dr. Leon W. Weinberger. Practically all of the findings described by Dr. Weinberger have found some application in New England. Future water pollution control research, specifically related to New England problems, will be carried out at the Regional Water Pollution Control Laboratory in Boston for which land for construction has been obtained.

Under Section 8 of the Federal Water Pollution Control Act, if the Secretary of Health, Education, and Welfare, on the basis of reports, studies, and surveys, has reason to believe that pollution originating in one State endangers health or welfare of persons in another State, he shall call a conference among the State water pollution control agencies, any interstate agencies involved, and the Department. The Secretary, having such reason on the basis of reports, studies. and surveys, has called a conference on the interstate waters of the Connecticut River (Massachusetts-Connecticut) for December 2, 1963, to be held in Hartford, Connecticut. Invited to participate are the water pollution control agencies of Connecticut and Massachusetts, the New England Interstate Water Pollution Control Commission, and representatives of the Department. More complete data will be gathered by the Public Health Service prior to the conference to aid in the evaluation of the problem.

2. Interstate

The New England Interstate Water Pollution Control Commission was authorized by Congress in 1947. The first States to join this compact through State legislative ratification were Connecticut, Massachusetts, and Rhode Island. New York ratified the compact in 1949, Vermont and New Hampshire in 1951, and Maine in 1955. Compact affairs are administered by the Commission which consists of five members from each of the signatory States. A Technical Advisory Board, composed of the directors of State water pollution control agencies, is responsible for the technical phases of the Commission's activities.

The role of the New England Interstate Water Pollution Control Commission is to promote, formulate, and conduct a sound and integrated program for use of interstate waters of the region. This is accomplished through information programs, research, and classification of interstate waters. Each State is then responsible for bringing its portion of the classified stream up to the classification approved. Under this program 22 interstate drainage basins in the compact area have been classified and nine other basins have had classification studies completed or are now in progress.

The New England Interstate Water Pollution Control Commission has sponsored 22 regional type research projects since 1949. Reports were prepared on 10 of these studies. These projects have been conducted through contractual arrangements with technical institutions in the compact area. Funds for financing most of the projects have been allotted to the Commission under the provisions of the Federal Water Pollution Control Act.

3. State

All of the States in the New England area have official water pollution control agencies responsible for the State's program. Federal funds available and those actually utilized by these State agencies and the New England Interstate Water Pollution Control Commission for fiscal year 1963 program operation are:

	Federal		Federal Funds
	Allotment	Share	Expended
Connecticut	$ 81,600	36.04	$ 54,260
Maine	37,100	58.56	38,337
Massachusetts	131,700	43.25	139,595
New Hampshire	34,600	53.30	36,045
Rhode Island	58,000	50.45	51,000
Vermont	26,000	58.02	27,398
New England Interstate Water Pollution Control Commission	40,600	40.04	12,958

During fiscal year 1963, Connecticut, Rhode Island, and the New England Interstate Water Pollution Control Commission failed to receive enough State funds to match the Federal program grants allotted. Therefore, they did not receive all Federal monies for which they were eligible.

In addition to classification, research, and pollution abatement through the compact the States are conducting surveys and carrying out pollution abatement on intrastate streams and coastal waters. Several of the States support research on pollution problems within their State.

4. Local

Of the fiscal year 1963 $90 million appropriated by Congress under the Federal Water Pollution Control Act (PL 84-660, as amended) to construct municipal wastes treatment facilities, the New England States were allotted the following amounts:

Connecticut	$1,183,950
Maine	1,094,040
Massachusetts	1,911,510
New Hampshire	934,785
Rhode Island	938,160
Vermont	963,990

Also under the Accelerated Public Works Program additional grants were made up to 50 per cent of the total cost of certain projects. Priorities are established and plans reviewed by the States before submission to the Regional Office for approval and grant offer.

During fiscal year 1963, 59 projects for the construction of waste treatment facilities in the New England States were approved under PL 84-660 and the Accelerated Public Works Act. The total estimated eligible cost of these projects was $44,668,846. Grants of $9,402,288 under the PL 84-660 Program and $6,443,968 under the Accelerated Public Works Program were made.

	June 30, 1962*		June 30, 1963*	
State	Approved	Complete or Under Construction	Approved	Complete or Under Construction
Connecticut	19	19	28	24
Maine	12	12	22	16
Massachusetts	71	60	86	78
New Hampshire	22	17	31	26
Rhode Island	18	14	28	21
Vermont	18	15	24	19
	160	137	219	184

* Cumulative since start of program, July 1956

The above data indicate the approval of 59 new projects in fiscal year 1963, more than double the yearly average for the six previous years of the program. Much of this increase was due to availability of funds under the Accelerated Public Works Act.

Data on the waste treatment facilities accomplishments by industry and Federal installations are not available for analyses.

COOPERATIVE ACTIVITIES

1. Federal

Cooperation on water resource development and water quality control result from the close working arrangements between Federal agencies at the field level. Regional field offices are maintained by several of the Federal departments in the Boston metropolitan area. Inquiries about the Federal programs are referred to the responsible agency and discussed where appropriate.

In the development of plans for a Federal water resource project, the responsible agency requests the Department of Health, Education, and Welfare to submit its views and interests as to whether the construction and/or operation of the project will adversely affect water quality. Also by a memorandum of understanding, the Corps of Engineers requests that the needs for water supply storage be evaluated in its multi-purpose reservoir projects.

Similar requests on effects on water quality are initiated by Soil Conservation Service, Federal Power Commission, and the Department of the Interior on its projects. Close coordination in project development must be maintained in order that the best quality of water may be made available for all legitimate uses.

Since 1955, the Department of Health, Education, and Welfare commented on a total of 65 Corps of Engineers and Soil Conservation Service water resource projects in the Housatonic, Connecticut, and Thames River Basins. To our knowledge, none of these projects have or are expected to create a water quality problem.

In addition, many problems of mutual interest are discussed very early in the planning stage through an interagency group in New England. This organization entitled the Northeastern Resources Committee is composed of representatives from seven Federal agencies (Department of Agriculture, Department of the Army, Department of Commerce, Department of Health, Education, and Welfare, Department of the Interior, Department of Labor, and Federal Power Commission) and the six New England States. The interchange of ideas and information at these Water Resources Committee meetings has been extremely valuable in establishing closer working relations among State and Federal agency representatives. These meetings have also given the members an opportunity to understand other agency responsibilities and duties in the development of water and natural resources within these New England States.

2. State and Interstate Agencies

Data gathered through the facilities inventories, contract awards publications, and water quality network program are made available to State and interstate agencies for their program planning and operation. As research information and general information are published, it is also made available to these agencies. Exhibit material and pamphlets are provided for public educational programs. Recently the 1963 "Clean Water" television-radio program was initiated nationwide and the New England States agreed to handle all inquiries generated by it.

In the review of Federal water resource projects, contact is made with the State agencies having responsibility for water supply planning, water quality control, and public health. Their interests and responsibilities are discussed, evaluated, and included in Water Supply and Pollution Control review procedures.

State program plans are reviewed annually to determine if these plans meet requirements for Federal program grants. By coordinated review and discussion with the States, it becomes much easier to integrate Federal and State activities in controlling water pollution problems. Reasonable time and priority schedules can then be developed and an orderly attack made on the region's water pollution problems.

3. Municipalities

Local problems of industries and municipalities are generally handled by the State agencies. Occasional new or unusual problems require knowledge and capabilities beyond the State's resources. Upon request, the Water Supply and Pollution Control program then provides technical assistance on the problem. Educational information is provided civic groups and municipalities to promote programs on conservation and protection of water quality.

4. Civic and Conservation Groups

Assistance or information has been provided the Watershed Association and civic groups in the New England area. This has consisted of speaking to their members on water pollution control, providing reading materials, and assisting in the writing and editing of educational material.

5. Industry, Universities, and Private Organizations

Meetings have been held with industry on their pollution problems and suggestions have been sought on type of research project needed. Universities, industry and both public and private organizations are doing research on projects of particular significance to the area. Projects have included detection of pesticides in fish, determination of operating efficiency of several types of waste treatment processes in New England, and use of systems analyses approach for optimum river basin development.

Appendix I

MUNICIPAL WATER USE
HOUSATONIC RIVER BASIN
in
CONNECTICUT

COMMUNITY	POPULATION 1960	SERVED	SOURCES OF SUPPLY	AVERAGE PLANT OUTPUT (MGD)
Bantam (Morris(T))	-	305	Wells	X
Bethel (V)	8,200	5,000	2 Reservoirs; Mntn Lakes and wells (2)	1.0
Canaan (T)	790	233	Wells	0.009
Cornwall	1,051	275	Springs	X
Danbury (T)	39,382	36,000	Margeria & West Lake Res.	5.91
Derby S#1	12,132	39,700	2 Reservoirs & 2 Wells	1.85
Derby S#2	-	(X)	Ansonia Water Co.	-
Falls Village (Cannan(T))	-	275	Wells (3)	X
Kent	1,686	600	Reservoir & 2 Wells	0.058
Litchfield	6,264	2,000	Wells	0.18
New Milford S#1	3,023	4,000	4 Spring fed Reservoirs	0.388
New Milford S#2	-	275	Wells	X

Appendix I

HOUSATONIC RIVER BASIN in CONNECTICUT *

COMMUNITY	POPULATION 1960	POPULATION SERVED	SOURCE OF SUPPLY	AVERAGE PLANT OUTPUT (MGD)
Salisbury	3,309	2,800	7 Wells and 2 Reservoirs	0.242
Sharon	2,141	1,800	2 Reservoirs	0.276
Shelton	18,190	(8,000)	Bridgeport Hydraulic Co.	-
Stratford	45,012	(41,250)	Bridgeport Hydraulic Co.	-
Washington Depot	X	350	Springs & Wells	X
Washington Green	2,603	300	3 Springs & 5 Wells	X
Woodbury	3,910	2,900	Reservoirs & Wells	0.132
Newtown (T)	**11,373**	**6,600**	**Taunton Lake**	**0.189**
Norfolk	**1,827**	**1,572**	**Lake Wangum**	**0.325**
No. Canaan S#1	**2,836**	**230**	**Well & Spring**	**0.01**
No. Canaan S#2	**-**	**1,780**	**Reservoir & Wells**	**0.181**

*Excluding Naugatuck Sub-Basin

Appendix I

MUNICIPAL WATER USE
HOUSATONIC RIVER - NAUGATUCK SUB-BASIN
in
CONNECTICUT

Pg 3 of 3

COMMUNITY	POPULATION 1960	SERVED	SOURCE OF SUPPLY	AVERAGE PLANT OUTPUT (MGD)
Ansonia	19,819	19,000	Middle & Quilliman Res.; Fountain Lake	2.812
Beacon Falls	2,886	(1,500)	Seymour Water Co.	-
Bethany	2,384	(X)	New Haven Water Co.	-
Middlebury	4,785	275	Wells; Spring; City of Waterbury	-
Naugatuck	-	20,500	Reservoirs (4) and 2 Wells	4.7
Oakville (F.D.)	-	(5,500)	City of Waterbury	-
Seymour S#1	10,100	7,100	Reservoirs (4) and Wells	1.48
Seymour S#2	-	(480)	Ansonia Water Co.	-
Seymour S#3	-	(5,300)	Birmingham Water Co. (Derby)	-
Thomaston	3,579	5,000	Reservoir & Wells	0.713
Torrington S#1	30,045	23,000	Hart & Allen Dam Res.	3.29
Torrington S#2	-	986	Wells	0.055
Waterbury	107,130	113,527	4 Reservoirs	17.75
Watertown (F.D.)	-	4,916	Wells & City of Waterbury	0.61

Appendix I

MUNICIPAL WATER USE
HOUSATONIC RIVER BASIN
in
MASSACHUSETTS

Pg 1 Of 2

COMMUNITY	POPULATION 1960	SERVED	SOURCE OF SUPPLY	AVERAGE PLANT OUTPUT (MGD)
Dalton	6,436	685	Spring	0.043
Dalton (F.D.)	-	6,000	Anthony Brook, Egypt Brook, Windsor & Clev. Brook Res.	1.039
Egremont	895	600	Goodale Brook Res.	X
Great Barrington	6,624	2,900	Long Pond	0.252
Great Barrington (F.D.)	-	5,200	E. Mountain Res.	0.788
Hindsdale (F.D.)	-	1,000	Belmont Res.	0.040
Lanesborough (F.&W.D.)	-	2,749	Wells	0.179
Lee	5,271	5,500	Codding Brook, Venetti & Wash. Mt. Res.	1.010
Lenox	4,253	8,000	Root, Lenox Mt. Ravine, and Woolsey Res.	0.530
Monteray	480	95	Springs & Well	X
New Marlborough S#1	1,083	40	Springs	X

HOUSATONIC RIVER BASIN in MASSACHUSETTS

COMMUNITY	POPULATION 1960	 SERVED	SOURCE OF SUPPLY	AVERAGE PLANT OUTPUT (MGD)
New Marlborough S#2	-	32	Springs	X
New Marlborough S#3	-	125	Springs	0.014
Pittsfield	57,879	57,223	Ashley Lake & 8 Reservoirs	10.330
Sheffield	2,138	1,283	Springs	X
Stockbridge S#1	2,161	2,800	Lake Averic	0.194
Stockbridge S#2	-	64	Spring	X
West Stockbridge	1,244	600	Spring	0.054

Appendix I

MUNICIPAL WATER USE
CONNECTICUT RIVER BASIN
in
CONNECTICUT

COMMUNITY		POPULATION		SOURCE	AVG. PLANT OUTPUT
		1960 Census	Served		
Avon	S #1	5,273	2,000	5 Wells	0.075
	S #2	-	135	1 Well	X
Bloomfield	S #1	13,613	(X)	Hartford Co. Metro Dist.	-
	S #2	-	170	Well	X
Bristol		45,499	45,000	Poland & Pequabeck Rivs. 2 Wells	4.92
Broadbrook	S #1	1,389	1,600	3 Wells	0.081
	S #2	-	100	1 Well	X
Colchester		2,260	3,000	2 Wells	0.125
Collinsville (Canton(T))		1,682	2,110	Nepaug Res. & Spring	0.18
Old Saybrook (T)		5,274	(8,680)	Conn. Water Co., Guilford Sect.	-
Chester (Chester Sect., Conn. Water Co.)		2,520	8,500	2 Reservoirs & 1 Well	1.0
Cromwell (F.D.)		-	4,000	6 Wells	0.242
Deep River		2,968	(X)	Conn. Water Co., Chester Sect.	-
Durham (T)	S #1	3,096	192	2 Springs & 1 Well	0.012
	S #2	-	200	Fowler Brk.	0.008

Appendix I

MUNICIPAL WATER USE
CONNECTICUT RIVER BASIN
in
CONNECTICUT (Cont'd)

East Farmington Hghts.		X	200	Wells	X
East Hartford		43,977	(X)	Hartford Co. Metro Dist.	-
Ellington	S #1	5,580	325	Well	0.022
	S #2	-	(X)	Rockville Water Co.	-
Enfield	S #1	31,464	10,850	Wells	0.61
	S #2	-	184	Well	0.014
Essex		4,057	(X)	Conn. Water Co., Chester Sect.	-
Farmington	S #1	10,813	2,000	Reservoir & Well	0.25
	S #2	-	X	Well	X
	S #3	-	120	Well	0.012
Glastonbury	S #1	14,497	(8,000)	Hartford Co. Metro Dist.	-
	S #2	-	150	Well	0.015
	S #3	-	410	Reservoir	0.05
Granby		4,968	560	Well	0.035
Hartford		162,178	(X)	Hartford Co. Metro Dist.	-
Hartford Co. Metro Dist.		-	355,000	Reservoirs: Cold Brk., Nepaug, Barkhamstead West Hartford	42.8
Hebron	S #1	1,819	320	Wells	0.04
	S #2	-	900	Artesian Wells	X

MUNICIPAL WATER USE
CONNECTICUT RIVER BASIN
in
CONNECTICUT (Cont'd)

Kensington (F.D.)		-	(7,000)	New Britain Water Dept.	-
Manchester (T)	S #1	42,102	26,200	Reservoirs: Porter, Howard, Globe Hollow, Highland Park, Roaring Brk.	2.19
	S #2	-	14,300	3 Wells & Reservoir	1.17
Marlborough (T)	S #1	1,961	150	Well	X
	S #2	-	156	Well	X
	S #3	-	128	2 Wells	X
Middletown		33,250	27,000	Laurel Brk., Mt. Higby Res.	2.54
New Britain		82,201	97,965	Reservoirs: Shuttle Meadow, Whigville, Wolcott, and 27 Wells	10.72
New Hartford		3,033	1,150	Reservoir & Well	0.08
Newington (T)	S #1	17,664	(17,900)	Hartford Co. Metro Dist.	-
	S #2	-	(700)	New Britain Water Dept.	-
Old Lyme (T)		3,068	648	Well	0.005
Plainville (T)	S #1	13,149	11,375	2 Wells	0.786
	S #2	-	(1,200)	New Britain Water Dept.	-
Portland		5,587	5,600	Reservoir & Well	0.372

MUNICIPAL WATER USE
CONNECTICUT RIVER BASIN
in
CONNECTICUT (Cont'd)

Rockville		9,478	14,198	Snipsic	2.22
Rocky Hill (T)		7,404	(6,100)	Hartford Co. Metro Dist.	-
Saybrook Point		X	(X)	Conn. Water Co. - Guilford Sect.	-
Simsbury	S #1	2,745	5,088	Reservoir & Well	0.365
	S #2	-	250	Spring	X
Somers		3,702	(1,135)	Broud Brook Water Co.	-
South Windsor (T)		9,460	(1,050)	Hartford Co. Metro Dist.	-
Suffield Suffield Sect. Conn. Water Co.		1,069	4,500	Wells	0.175
Talcottville		X	220	Well	X
Tariffville (F.D.)		-	1,400	Well	0.106
Terryville (Plymouth (T))		5,231	6,000	2 Reservoirs & 2 Wells	0.412
Thompsonville Thompsonville Sect., Conn. Water Co.		-	19,500	Wells	1.66
Unionville		2,246	3,500	2 Reservoirs	0.35

Appendix I

MUNICIPAL WATER USE
CONNECTICUT RIVER BASIN
in
CONNECTICUT (Cont'd)

Vernon (T)	19,961	800	2 Wells	0.05
West Hartford (T)	62,382	(69,000)	Hartford Co. Metro Dist.	-
Wethersfield (T)	20,561	(20,100)	" " " "	-
Windsor (T)	19,467	(17,350)	" " " "	-
Windsor Locks Sect., Conn. Water Co.	-	12,000	4 Wells	0.65
Winstead	8,136	8,000	Reservoirs: Crystal Lake, Rugg Brk. Mad River	1.68

Appendix I

MUNICIPAL WATER USE
CONNECTICUT RIVER BASIN
in
MASSACHUSETTS

COMMUNITY	POPULATION 1960	SERVED	SOURCE OF SUPPLY	AVERAGE PLANT OUTPUT (MGD)
Agawam	15,718	(17,000)	Springfield	-
Amherst	13,718	19,326	Amethyst Brook Res. Athins Pond & Wells	1.353
Ashfield	1,131	390	Highland Spring Res. and Well	X
Athol	11,637	11,537	Thousand Acre Brook and Res. and Well	1.049
Baldwinsville	1,631	155	Templeton	X
Barre S#1	3,479	2,180	Allen Hill Res. and Well	0.230
Barre S#2	3,479	1,000	Wells	0.139
Belchertown	5,186	950	Wells	0.071
Bernardston (F.&W.D.)	-	1,277	Wells	0.151
Blanford (F.D.)	-	706	Long Pond	0.068
Brookfield	1,751	1,200	Couley Hill Res. & Wells	0.110
Chester	1,155	950	Austin Brook Res. & Horn Pond	X

CONNECTICUT RIVER BASIN in MASSACHUSETTS

COMMUNITY	POPULATION 1960	POPULATION SERVED	SOURCE OF SUPPLY	AVERAGE PLANT OUTPUT (MGD)
Chicopee	61,553	61,553	Quabbin Res. of Met. Dist. Comm.	X
Colrain	1,426	142	Springs & Well	0.0004
Colrain (F.D.)	-	180	Mountain Brook Res.	0.005
Cummington	550	300	Well	0.012
Deerfield (F.D.)	-	X	Wells	X
East Brookfield	1,533	1,250	Wells	0.085
Easthampton	12,326	12,326	Wells	2.361
East Longmeadow	10,294	(11,500)	Springfield	-
Gilbertsville (W.D.)	-	1,215	Wells	0.031
Gill	1,203	400	Springs	0.02
Granville	874	80	Springs & Wells	0.003
Greenfield	17,690	19,000	Glen Br. Res. & Wells	2.350
Griswaldville (W.D.)	-	120	Well	X
Hadley (W.S.D.)	-	1,142	Reservoirs & Well	0.231
Hardwick	2,340	80	Well	X
Hatfield	2,350	2,350	Running Gutter Brook Res.	0.082
Holyoke	52,689	52,700	Manhan River & Reservoirs	8.698

CONNECTICUT RIVER BASIN in MASSACHUSETTS

COMMUNITY	POPULATION 1960	POPULATION SERVED	SOURCE OF SUPPLY	AVERAGE PLANT OUTPUT (MGD)
Huntington (.F.D.)	-	X	Cold Brook Res. & Wells	X
Lake Pleasant W.S.D.	-	200	Turners Fall (.F.D.)	-
Leicester	-	2,000	Wells	0.181
Longmeadow	10,565	(11,000)	Springfield	-
Ludlow	13,805	(14,414)	Springfield	-
Millers Falls F.&.W.D.	-	1,300	Turners Falls Fire Dist.	0.211
Monroe (W.D.)	-	174	Phelps Brook Res.	0.033
Monson	6,712	6,000	Ingalls Brook & Wells	0.580
Montague Center W.D.	-	600	Spring	X
Northampton	30,058	30,000	Reservoirs & Wells	3.20
North Brookfield	3,616	4,200	North & Doane Ponds	0.396
Northfield S#1	2,320	560	Minot Brook Res.	X
Northfield S#2	-	2,000	Louisiana Brook Res.	0.140
Northfield S#3	-	1,420	Northfield Schools Inc.	0.079
Orange	6,154	6,000	Spring, Coolidge Brook Res & Wells	0.479
Palmer	10,358	1,200	Wells	X

CONNECTICUT RIVER BASIN in MASSACHUSETTS

COMMUNITY	POPULATION 1960	POPULATION SERVED	SOURCE OF SUPPLY	AVERAGE PLANT OUTPUT (MGD)
Palmer (F.D.)	-	4,725	Groves Brook Res & Wells	0.465
Russell	1,366	1,300	Black Brook Res & Well	0.160
Shelburne Falls (F.D.)	-	4,425	Fox Brook Res. & Well	0.218
Southampton	2,192	825	Holyoke	0.120
S. Deerfield (W.D.)	-	1,750	Roaring Brook Res.	0.409
S. Hadley (F.D1)	-	10,000	Quabbin Reservoir of M.D.C.	0.976
S. Hadley (F.D.2)	-	5,500	Wells & Elmer Brook	0.413
Southwick	5,139	(3,620)	Springfield	-
Spencer	7,838	5,500	Shaw Pond	X
Springfield	174,463	178,700	Ludlow Reservoir & Little River	31.988
Sturbridge	3,604	2,340	Wells	0.182
Sunderland (W.D.)	-	800	Saw Mill Brook Res.	0.088
Templeton	5,371	4,500	Wells	0.390
Thorndike (W.D.)	-	1,000	Hamilton Reservoir	0.093
Three River (F.D.)	-	5,850	Wells	0.227
Turners Falls (F.D.)	-	8,500	Lake Pleasant	1.500
Ware	7,517	7,600	Wells	0.622

CONNECTICUT RIVER BASIN in MASSACHUSETTS

COMMUNITY	POPULATION 1960	SERVED	SOURCE OF SUPPLY	AVERAGE PLANT OUTPUT (MGD)
Warren (W.D.)	-	2,150	Wells	0.155
West Brookfield	2,053	4,250	Wells	0.355
Westfield	26,302	26,400	Montgomery & Granville Res. & Wells	3.028
Westhampton	-	52	Mountain Brook Reservoir	X
West Springfield	24,924	25,000	Bear Hole Res. & Wells	2.942
West Warren Water Co.	-	1,200	Wells	0.007
Whately	1,037	150	Springs & Wells	X
Wheelwright (W.D.)	-	370	Well	0.010
Wilbraham	7,387	5,864	Quabbin Res. of M.D.C.	0.342
Williamsburg	2,186	1,650	Well & Unquomonk Brook Res.	0.153
Winchendon	6,237	6,207	Upper Naukeag Lake & Wells	0.391
Worthington (F.D.)	-	320	Springs & Well	0.269
Gardner	**19,038**	**18,900**	**Crystal Lake & Perley Brook**	**1.446**

Appendix I

MUNICIPAL WATER USE
THAMES RIVER BASIN
in
CONNECTICUT

COMMUNITY	POPULATION 1960 Census	 Served	SOURCE OF SUPPLY	AVG PLANT OUTPUT (MGD)
Attawaugan	X	650	Reservoir	X
Baltic	1,366	1,600	Reservoir	X
Bolton	2,933	240	2 Wells	X
Bolton Notch	X	75	Well	X
Brooklyn	3,312	(X)	Danielson (Crystal Water Co)	-
Coventry S#1	6,356	188	Wells	0.006
S#2	-	600	7 Wells	0.003
Danielson	4,642	11,000	Reservoir & Wells	0.61
Gales Ferry (Ledyard(T))	X	225	Wells	0.009
Groton (T)	29,937	27,000	Poquonnock Reservoir	7.3
Hanover	X	150	Reservoir	X
Jewett City	6,472	5,000	Reservoir & Well	0.75
Lebanon	2,434	(X)	Norwich Water Dept	-
Mechanicsville	300	256	2 Wells	0.011

Appendix I

MUNICIPAL WATER USE
THAMES RIVER BASIN
in
CONNECTICUT (Cont'd)

COMMUNITY	POPULATION 1960 Census	 Served	SOURCE OF SUPPLY	AVG PLANT OUTPUT (MGD)
Montville (T) S#1	7,759	136	2 Wells	0.01
S#2	-	X	2 Wells	X
S#3	-	1,200	5 Wells	0.09
S#4	-	470	3 Wells	0.035
Moosup S#1	2,760	164	Well	0.01
S#2	-	312	2 Wells	0.02
S#3	-	150	2 Wells	0.015
Mystic (Stonington(T)	2,536	13,350	Palmer Reservoir & Dean Pond	0.82
New London	34,182	35,652	Konomoc Reservoir	3.92
North Grosvenor Dale	1,874	3,600	Well	0.173
Norwich S#1	38,506	35,374	Reservoirs: Deep River, Stony Brook & Fairview	3.5
S#2	-	400	4 Wells	0.024
S#3	-	4,000	3 Reservoirs	0.3
Plainfield S#1	2,044	1,300	Spring	0.298
S#2	-	250	Well	0.025
Putnam	6,952	8,165	Little River Reservoir	1.33

Appendix I

MUNICIPAL WATER USE
THAMES RIVER BASIN
in
CONNECTICUT (Cont'd)

COMMUNITY	POPULATION 1960 Census	POPULATION Served	SOURCE OF SUPPLY	AVG PLANT OUTPUT (MGD)
Rogers (Killingly(T))	X	1,000	Artesian Well	0.05
South Coventry	3,568	600	4 Wells	0.03
Stafford Springs Stafford Springs Section of Connecticut Water Co	3,320	2,930	2 Reservoirs & 2 Wells	0.308
Sterling	1,397	175	Spring & Well	0.013
Stonington S#1	13,969	(8,300)	Mystic	-
S#2	-	400	Artesian Well	X
Tolland S#1	2,950	260	Reservoir	0.016
S#2	-	92	2 Wells	0.006
Waterford (T) S#1	15,391	(2,000)	New London Water Dept	-
S#2	-	280	Well	0.015
S#3	-	200	Well	0.012
Wauregan (Plainfield(T))	X	850	Quinebaug Pond	0.141
Willimantic	13,881	16,156	Natchaug River	1.46
Woodstock (T)	3,177	140	2 Wells	0.008

Appendix I

MUNICIPAL WATER USE
THAMES RIVER BASIN
in
MASSACHUSETTS

COMMUNITY	POPULATION 1960 Census	 Served	SOURCE OF SUPPLY	AVG PLANT OUTPUT (MGD)
Brimfield	1,414	350	Spring	X
Dudley	6,510	6,000	Wells	0.578
Leicester	-	920	Well	0.039
Oxford	9,282	8,700	Wells	0.432
Southbridge	16,523	16,523	Hatche Brook Reservoirs	1.346
Webster	13,680	14,000	Wells	1.050

Appendix I

SOURCES OF INDUSTRIAL WATER
in
CONNECTICUT

Basin	Water Used (1,000 gpd)	Total Industries	Number of Industries per Water Source				
				Industrial Supply			
			Supplied by Municipality	Surface	Ground	Combined Surface & Ground	Combined Municipal & Industrial
Housatonic (NE-2)	≤ 50	159	132	4	18	0	5
	50 < WU ≤ 100	11	5	0	2	1	3
	100 < WU ≤ 500	21	6	4	3	3	5
	>500	14	3	2	0	0	9
	TOTAL	205	146	10	23	4	22
Naugatuck (NE-2-01)	≤ 50	150	103	1	39	1	6
	50 < WU ≤ 100	12	8	0	1	0	3
	100 < WU ≤ 500	29	10	6	0	2	11
	>500	20	2	1	1	1	15
	TOTAL	211	123	8	41	4	35

Appendix I

SOURCES OF INDUSTRIAL WATER
in
CONNECTICUT

Basin	Water Used (1,000 gpd)	Total Industries	Number of Industries per Water Source				
				Industrial Supply			
			Supplied by Municipality	Surface	Ground	Combined Surface & Ground	Combined Municipal & Industrial
Connecticut (NE-4)	≤ 50	665	508	13	108	5	31
	$50 < WU \leq 100$	27	22	1	0	2	2
	$100 < WU \leq 500$	36	16	6	1	2	11
	>500	21	5	2	0	3	11
	TOTAL	749	551	22	109	12	55
Thames (NE-5)	≤ 50	199	97	24	53	13	12
	$50 < WU \leq 100$	8	4	1	0	2	1
	$100 < WU \leq 500$	20	4	2	2	5	7
	>500	16	1	2	0	9	4
	TOTAL	243	106	29	55	39	24

Appendix II

SUMMARY OF MUNICIPAL WASTE DISCHARGES
HOUSATONIC (NE-2), CONNECTICUT (NE-4), AND THAMES (NE-5) RIVER BASINS

River Basin	State	Number of Municipalities Discharging Wastes	Contributory Population	Type of Treatment					
				Primary		Secondary		None	
				# of Munici-palities	Popu-lation Served	# of Munici-palities	Popu-lation Served	# of Munici-palities	Popu-lation Served
Housatonic excluding Naugatuck Sub Basin	Connecticut	20	277,233	8	198,623	6	34,770	6	43,840
	Massachusetts	12	69,380	1	300	7	59,690	4	9,390
Total		32	346,613	9	198,923	13	94,460	10	53,230
Naugatuck	Connecticut	8	186,940	4	158,000	1	4,000	3	24,940
TOTAL HOUSATONIC		40	533,553	13	356,923	14	98,460	13	78,170
Connecticut	Connecticut	34	454,748	26	412,318	8	42,430	0	0
	Massachusetts	61	463,955	15	265,560	18	39,825	28	158,570
TOTAL CONNECTICUT		95	918,703	41	677,878	26	82,255	28	158,570
Thames	Connecticut	19	112,070	12	87,800	4	14,770	3	9,500
	Massachusetts	7	9,160	4	7,760	1	300	2	1,100
TOTAL THAMES		26	121,230	16	95,560	5	15,070	5	10,600

Appendix III

INDUSTRIAL WASTE DISPOSAL PRACTICES
in
CONNECTICUT

Total Water Used (gpd)	Number of Industries	To Municipal Sewer	To Industrial Treatment	Raw Discharge
HOUSATONIC RIVER BASIN EXCLUDING NAUGATUCK SUB BASIN (NE-2)				
W.U. ≤ 50,000	159	16	12	35
50,000 < W.U. ≤ 100,000	11	1	3	5
100,000 < W.U. ≤ 500,000	21	0	11	3
W.U. > 500,000	14	0	4	5
NAUGATUCK SUB BASIN OF HOUSATONIC RIVER BASIN (NE-2-01)				
W.U. ≤ 50,000	150	28	17	38
50,000 < W.U. ≥ 100,000	12	1	2	9
100,000 < W.U. ≤ 500,000	29	3	7	15
W.U. > 500,000	20	3	3	13

Appendix III

INDUSTRIAL WASTE DISPOSAL PRACTICES
in
CONNECTICUT

Total Water Used (gpd)	Number of Industries	To Municipal Sewer	To Industrial Treatment	Raw Discharge
CONNECTICUT RIVER BASIN (NE-4)				
W.U. $\leq$ 50,000	665	128	63	115
50,000 $<$ W.U. $\leq$ 100,000	27	11	7	10
100,000 $<$ W.U. $\leq$ 500,000	36	15	11	8
W.U. $>$ 500,000	21	4	6	7
THAMES RIVER BASIN (NE-5)				
W.U. $\leq$ 50,000	199	24	18	56
50,000 $<$ W.U. $\leq$ 100,000	8	1	3	5
100,000 $<$ W.U. $\leq$ 500,000	20	5	5	9
W.U. $>$ 500,000	16	0	8	6

Appendix III

INDUSTRIES WITH SEPARATE DISCHARGES
HOUSATONIC RIVER BASIN
in
MASSACHUSETTS

INDUSTRY	LOCATION	EMPLOYEES	CLASSIFICATION	TREATMENT	P.E. DISCHARGED	RIVER
Crane & Company (4 mills)	(3)Dalton (1)Pittsfield	1,000	Paper mill	Settling	Unknown	Housatonic East Branch
P V Schweitzer Co	Lee	750	Paper mill	Save-all	Unknown	Housatonic
Westfield River Paper Company	Lee	75	Paper mill	Save-all	Unknown	Housatonic
Hurlbert Paper Co	South Lee	150	Paper mill	Save-all	670	Housatonic
Rising Paper Co	G Barrington	245	Paper mill	Save-all	Unknown	Housatonic

Appendix III

INDUSTRIES WITH SEPARATE DISCHARGES
CONNECTICUT RIVER BASIN
in
MASSACHUSETTS

INDUSTRY	LOCATION	EMPLOYEES	CLASSIFICATION	TREATMENT	P.E. DISCHARGED	RIVER
Gem Crib & Cradle Co	Gardner	200	Metal plating	None	Inorganic	Otter
Heywood-Wakefield Co	Gardner	1,800	Metal plating	None	Inorganic	Otter
Kelley Bros	Gardner	60	Metal plating	None	Inorganic	Otter
L B Ramsdell Co	Gardner	150	Metal heat treat	None	Inorganic	Otter
Baldwinville Prod Co	Baldwinville	75	Paper mill	Save-all	Unknown	Otter
Seaman Paper Co	Baldwinville	30	Paper mill	Save-all	8,000	Otter
Athol Mfg Co	Athol	150	Synthetic textiles	None	1,500	Miller
N D Cass Co	Athol	175	Lumber	None	55	Miller
L S Starrett Co	Athol	1,600	Metal products	None	Inorganic	Miller
Union Twist Drill Co	Athol	1,200	Metal products	None	Inorganic	Miller
Leavitt Machine Co	Orange	75	Metal cutting oil	None	60	Miller
Orange Foundry Inc	Orange	75	Metals	None	15	Miller
Torrington Co	Orange	90	Oils plating	None	Inorganic	Miller
Erving Paper Mill	Erving	450	Paper mill	None	5,200	Miller
Esleeck Mfg Co	Montague	195	Paper mill	Controlled flow save-alls	600	Connecticut

Appendix III

INDUSTRIES WITH SEPARATE DISCHARGES
CONNECTICUT RIVER BASIN
in
MASSACHUSETTS

INDUSTRY	LOCATION	EMPLOYEES	CLASSIFICATION	TREATMENT	P.E. DISCHARGED	RIVER
Strathmore Paper Co	Montague	250	Paper mill	Controlled flow save-alls	1,500	Connecticut
Deerfield Glassine Co	Monroe Bridge	150	Paper mill	Flotation save-alls	2,200	Deerfield
Texon Inc	So Hadley	300	Textile scouring	None	Unknown	Connecticut
Amer Writing Paper	Holyoke	1,000	Paper mill	Save-alls	10,000	Connecticut
Chemical Paper Mfg Co	Holyoke	600	Paper mill	None	5,750	Connecticut
Franklin Paper Co	Holyoke	25	Paper mill	None	900	Connecticut
Valley Paper Co	Holyoke	210	Paper mill	Save-alls	3,000	Connecticut
Whiting & Co	Holyoke	175	Paper mill	None	3,200	Connecticut
Barre Wool Combing	So Barre	600	Wool scouring	Acid cracking & lagoon	15,000	Ware
Wickwire-Spencer Co	Palmer	500	Pickling liquors	None	Inorganic	Chicopee
Utility Mfg Co	Wilbraham	25	Metal misc	None	Inorganic	Chicopee
Shawinigan Resins Corp	Springfield	600	Chemical	None	24,600	Chicopee
Thal Dyeing Co	Springfield	75	Wool dyeing	None	Unknown	Chicopee
Indian Orchard Co	Springfield	125	Wool finishing	None	1,850	Chicopee

Appendix III

INDUSTRIES WITH SEPARATE DISCHARGES
CONNECTICUT RIVER BASIN
in
MASSACHUSETTS

INDUSTRY	LOCATION	EMPLOYEES	CLASSIFICATION	TREATMENT	P.E. DISCHARGED	RIVER
Monsanto Chemical Co	Springfield	2,225	Chemical	Phenol recovery	10,500	Chicopee
U S Rubber	Chicopee	3,550	Synthetic rubber	None	9,200	Chicopee
Springfield Rendering	Chicopee	100	Rendering	Flotation	5,000	Connecticut
Hampden-Harvard Brewing Company	Chicopee	300	Brewery	None	2,100	Connecticut
H L Handy Co	Chicopee	550	Slaughterhouse	Flotation	50,000	Connecticut
Bancroft Paper Mill	Becket	25	Paper mill	Save-all & lagoon	1,700	Westfield West Branch
Texon Inc	Russell	90	Paperboard mill	Flotation	Unknown	Westfield
Westfield R Paper Co	Russell	100	Paper mill	Lagoons	200	Westfield
Strathmore Paper Co	Russell	500	Paper mill	Flotation	8,000	Westfield
Foster Machine Co	Westfield	490	Lubricating oil	None	Inorganic	Westfield
Stevens Paper Mill	Westfield	250	Paper mill	None	Unknown	Little
Westfield Mfg Co	Westfield	850	Metal	None	Inorganic	Little
Premoid Corp	W Springfield	150	Paper mill	None	Unknown	Westfield
Strathmore Paper Co	W Springfield	500	Paper mill	Save-alls	Unknown	Westfield
Southworth Co	W Springfield	75	Paper mill	Save-alls	Unknown	Westfield

Appendix III

INDUSTRIES WITH SEPARATE DISCHARGES
THAMES RIVER BASIN
in
MASSACHUSETTS

INDUSTRY	LOCATION	EMPLOYEES	CLASSIFICATION	TREATMENT	P.E. DISCHARGED	RIVER
Carleton Woolen Mills	Leicester	175	Wool finishing	None	1,000	Town Meadow Brook
Cranston Print Works	Webster	1,000	Cotton finishing	None	Unknown	French
Anglo Fabrics Company	Webster	350	Wool finishing	None	1,650	French
Webster Lens Company	Webster	175	Rouge grindings	None	Inorganic	French
Packard Mills Inc	Dudley	250	Wool finishing	None	5,000	French
Stevens Linen	Dudley	Unknown	Textile wastes	Lagoon	Unknown	French
Arland Tool Company	Sturbridge	Unknown	Cutting oils	Secondary	1,300	Quinebaug
R Harrington Cutlery	Southbridge	Unknown	Metals	Settling	Inorganic	Quinebaug
American Optical Co	Southbridge	Unknown	Rouge grindings	None	Inorganic	Quinebaug
Globe Tool & Die Co	Southbridge	Unknown	Plating	None	Inorganic	Quinebaug
Charlton Woolen Co	Charlton	Unknown	Woolen textile	None	1,600	Cady Brook
W Dudley Paper Co	Dudley	Unknown	Paper mill	None	27,400	Quinebaug

Appendix III

STATE OF CONNECTICUT
INDUSTRIES WITH SEPARATE DISCHARGES
HOUSATONIC RIVER BASIN

Industry	Location	Number of Employees	Principal Products	Treatment	Est. Average Daily Flow to River	Nature of Wastes	River
Homer D. Bronson Co.	Beacon Falls	255	Hinges	None	85,000	Acids, Cd, Cu, Z, Brass	Naugatuck River
Bethel Felt Body Co.	Bethel	85	Rough Hat Bodies	None	37,500	Acids, Dye	Sympaug Brook
Hannan Hat Co.	Bethel	40	Fur Felt Hats	None	8,000	Fiber	Sympaug Brook
Synco Resins, Inc	Bethel	40	Phenolic Resins & Vinyl Glue	None	307,000	Unknown	Sympaug Brook
Fairfield Processing Corp.	Danbury	25	Tanners' Wool, (Animal Fibers)	None	9,000	Acid & Ash	Still River
Frank H. Lee Co.	Danbury	600	Hats	None	240,000	Fiber, Acid Oil, H_2O_2	Still River
Halrick, Inc.	Danbury	10	Porcelain Enameling	None	Unknown	Acid, Oakite, Aluminum	Still River
Paul Martin Hat Co.	Danbury	64	Hats	None	5,000	Acids, Dye	Still River
Hull Dye & Print Works	Derby	300	Textiles	None	1,658,150	Soap, Detergent, Dye, Acid, and Alkali	Housatonic R.
Conn. Electric Manufacturing Co.	Litchfield (Bantam)	15	Electrical Devices	None	2,730	Cd, Cu, Cn	Shepaug River
Naugatuck Chemical Div., US Rubber	Naugatuck	2,000	Rubber, Insecticides	Screens, settling	9,380,000	Rubber, chemicals, insecticides	Naugatuck Riv

(continued)

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STATE OF CONNECTICUT
INDUSTRIES WITH SEPARATE DISCHARGES
HOUSATONIC RIVER BASIN

Industry	Location	Number of Employees	Principal Products	Treatment	Est. Average Daily Flow to River	Nature of Wastes	River
Dooval Tool & Mfg. Co.,Inc.	Naugatuck	28	Metal stamping	Unknown	9,600	Ni,Salts,Cn	Long Meadow Brook
Lewis Engineering Co.	Naugatuck	269	Electric products	None	97,000	Unknown	Long Meadow Brook
Risdon Mfg Co.	Naugatuck	328	Sheet metal, plastics	None	82,000	Unknown	Long Meadow Brook
New Haven Copper Co.	Seymour	90	Copper strips & sheets	None	140,000	Acid	Naugatuck River
Seymour Mfg. Co.	Seymour	440	Nonferrous Metals	None	2,000,000	Unknown	" "
Chromium Process Co.	Shelton	200	Electroplating	None	635,100	Cu,Ni,Cr, Cn & brighteners	Housatonic River
Star Pin Co.	Shelton	140	Common pins	None	2,812,000	Ni,acid,alkali, Cn,Cu,Au,Cd,Brass	" "
Donham Craft Inc.	Thomaston	14	Job plating	None	30,300	Acid & Alkali	Naugatuck River
Stromberg Time Corp.	Thomaston	686	Clocks	None	480,600	Cn,Brass,Acid	Naugatuck River
American Brass Co.	Torrington	734	Brass & Copper Products	None	4,225,800	Unknown	W. Branch, Naugatuck R.
Brunswick Sports Products	Torrington	750	Sporting Equipmt.	None	392,500	Unknown	" " "

(continued)

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STATE OF CONNECTICUT
INDUSTRIES WITH SEPARATE DISCHARGES
HOUSATONIC RIVER BASIN

Industry	Location	Number of Employees	Principal Products	Treatment	Est. Average Daily Flow to River	Nature of Wastes	River
Haydon Mfg.Co.Inc.	Torrington	414	Synchronous Motors & Timing Devices	None	6,700	Unknown	Troy Brook
Torrington Co. Broad St Plant	"	375	Needle bearing rolls & cups	None	87,700	Oil, Abrasive, Lime	Naugatuck River
Torrington Co. Excelsior Plant	"	1,150	Surgical needles	None	101,500	Abrasive & Lime	Naugatuck River
Torrington Co. Standard Plant	"	1,571	Bearings	None	322,500	Abrasive & Lime	Naugatuck River
Torrington Creamery	"	42	Milk products	None	50,000	Unknown	W.Branch Naugatuck Riv.
Torrington Mfg. Co.	"	860	Fans, Blower Wheels,Wire Forming Machinery	None	493,700	Unknown	Naugatuck Riv.
A.H. Wells Co.,Inc	Waterbury	80	Copper, brass tubing	None	17,000	Acid & Soda	Steel Brook
American Chemical Refining Co.,Inc	"	15	Gold,Silverplating	Settling, Neutralization	1,800	Cn,Salt, Acid	Mad River
Anaconda American Brass Fab. Metal (Good Div North Plant)	"	1,232	Screw & Eyelet machine products, copper alloy sheets	None	2,736,000	Acid,Cu, Zn	Naugatuck River

(continued)

Appendix III

STATE OF CONNECTICUT
INDUSTRIES WITH SEPARATE DISCHARGES
HOUSATONIC RIVER BASIN

Industry	Location	Number of Employees	Principal Products	Treatment	Est. Average Daily Flow to River	Nature of Wastes	River
Anaconda American Brass Co. America (Metal Hose Div. South Plant)	Waterbury	1,250	Flexible metal hose & tubing	None	1,880,000	Acid,Cu,Zn	Naugatuck River
Anaconda American Brass Co America (Small Tube Div.)	"	525	Small seamless tube	None	357,000	Acid	Naugatuck River
Benrus Watch Co.	"	350	Watch cases, missile launchers, & electrical assemblies	Unknown	3,800	Unknown	Naugatuck River
Bristol Instrument Co., Inc.	"	1,500	Recording Instruments	None	238,000	Oil	Naugatuck River
Chromium Corp. of America	"	98	Electro-plating	None	181,790	Acid,Cn	Steel Brook
Conn. Electro Plate Co.	"	14	"	None	4,800	Acid,Cn	Great Brook
Consol. Elec. Ind Inc. Haydon Div.	"	450	Timing motors & Devices	None	138,000	Oil	Great Brook
Diamond Ginger Ale, Inc.	"	20	Carbonated beverages	None	49,400	Alkali, Detergent	Naugatuck River
E. Color Print Curtiss-Wayne, Inc.	"	250	Magazines, publishing	None	5,600	Fe, Ni	Naugatuck River

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STATE OF CONNECTICUT
INDUSTRIES WITH SEPARATE DISCHARGES
HOUSATONIC RIVER BASIN

Industry	Location	Number of Employees	Principal Products	Treatment	Est. Average Daily Flow to River	Nature of Wastes	River
Harper-Leader, Inc.	Waterbury	12	Electro-plating precious metals	None	19,400	Cn, Acid, Au, Ag	Mad River
Lakewood Metal Products, Inc.	"	160	Lipstick cases, pencils, bottle caps, eyelets	"	21,600	Soap and Sawdust	Unnamed stream
Mattatuck Mfg. Co.	"	175	Automotive parts, wire forms	"	117,400	Unknown	Mad River
Mirror Polishing and Plating Co.	"	18	Polishing, buffing, plating	"	9,600	Unknown	Mad River
Quality Rolling & Deburring, Inc.	"	5	Metal finishing	"	1,900	Alkali, Ni, Acid, Cn	Great Turkey Brook
Risdon Mfg. Co. Wire Goods Plant	"	75	Safety badge pins, plumbing supplies	"	424,800	Soap, Ni, Zn, Acid, Fe	Naugatuck River
Roehr Products Co.	"	350	Metal pharmaceutical parts	Neutralization	31,750	Soap	Great Brook
Scoville Mfg. Co. Rolling Plant	"	4,400	Brass, sheet, rod, tube, aluminum	None	37,008,000	Acid, Ni, Cu, Cn	Mad River
Sperry Rand Corp. Vicker Inc.	"	1,000	Sub & anti-aircraft parts	"	86,820	Oil	Steel Brook
Waterbury Buckle Co.	"	300	Buckles, loop & strap hardware	"	72,300	Soap, Ni, Brass, Cn	Mad River

(continued)

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STATE OF CONNECTICUT
INDUSTRIES WITH SEPARATE DISCHARGES
HOUSATONIC RIVER BASIN

Industry	Location	Number of Employees	Principal Products	Treatment	Est. Average Daily Flow to River	Nature of Wastes	River
Waterbury Co.Inc.	Waterbury	500	Plastic products & uniform buttons	Filters	122,800	Au,Ag,Acid	Mad River
Waterbury Rolling Mills, Inc.	"	100	Casting,rolling, nickel,silver, brass, bronze	None	120,000	Acid,Ni,Cu, Zn	Steel Brook
Waterbury Steel Ball Co	"	90	Steel balls	None	2,400	Oil, Lime	Steel Brook
American Electro Products, Inc	"	33	Plated metals	None	48,300	Cu,Ni,Zn, Cd,Metals, Acid,Cn	Trib. of Hancock
Chase Brass & Copper Co	"	1,500	Copper & brass sheets & tubes	None	4,943,500	Acid	Naugatuck R.
Oakville Co , Div of Scoville Mfg Co	Watertown	637	Wire forming	None	1,138,400	Cn,Acid, Zn,Ni	Steel Brook
Seymour, Smith, & Sons, Inc.	"	75	Garden shears, marine equipmt.	None	44,830	Cn,Ni,Cr, Acid,Cu,Cd	Steel Brook
Southern New England Electro Plating	"	45	Plating	None	914,300	Cn,Acid, Cu,Cr,Cd	Steel Brook

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STATE OF CONNECTICUT
INDUSTRIES WITH SEPARATE DISCHARGES
CONNECTICUT RIVER BASIN

Industry	Location	Number of Employees	Principal Products	Treatment	Est. Average Daily Flow to River	Nature of Wastes	River
G.E. Prentice Mfg. Co.	Berlin (Kensington)	300	Zippers & Personal Hardware	None	52,000	Salts, Cn, Acid	Willow Brook
Blue Hills Chrome Co.	Bloomfield	1	Chrome Plating	None	3,750	Cd, Cn, Acid	Wash Brook
Bristol Brass Co.	Bristol	450	Bass Strip, Rod & Wire	None	744,000	Acid, Detergent	Pequabuck River
Clayton Mfg Co.	Bristol	40	Shears & Scissors	None	785,000	Acid, Cn	Unnamed brook
Elco Beverage Co.	Bristol	39	Bottled Beverages	None	13,000	Detergents	Pequabuck River
G.M.C. Plant B New Dept. Div	Bristol	Unknown	Ball bearings	Unknown	1,255,000	Detergents & Oil	Birge Brook
Ingraham Co.	Bristol	731	Clocks	None	42,000	Cn, Acid, Alkali, Tin, Brass	Pequabuck River
J.H. Sessions & Sons	Bristol	55	Metal Stampings	None	19,000	Cn, Acid, Alkali, Brass, Zn	Pequabuck River
Stanley Plating Co.	Bristol	55	Job Plating	None	85,500	Cn, Acid, Alkali, Brass, Zn	Unnamed brook

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STATE OF CONNECTICUT
INDUSTRIES WITH SEPARATE DISCHARGES
CONNECTICUT RIVER BASIN

Industry	Location	Number of Employees	Principal Products	Treatment	Est. Average Daily Flow to River	Nature of Wastes	River
Forestville Plating Co.	Bristol	2	Job Plating	None	4,200	Acid, Alkali, Cn, Cd, Cu, Tin, Nickel	Pequabuck River
Collins Co	Canton (Collinsville)	250	Edged Tools	None	8,250	Grit, Metal	Farmington River
C S Bates & Sons, Inc.	Chester	100	Manicure Supplies	None	24,000	Grindings, Soap	Chester Creek
Electric Soldering Iron, Inc	Deep River	17	Soldering Iron & Pots	None	260	Unknown	Rogers Pond
Varco, Inc.	Deep River	300	Business Forms	None	19,000	Unknown	Deep River
White Way Laundry	Deep River	15	Laundry	None	29,400	Detergent	Deep River
Carson Metal Products, Inc.	Farmington (Unionville)	5	Job Shop Machining	None	80	Unknown	Farmington River
Rogers Corp.	Manchester	45	Plastics, phenol board	Screens	89,000	Fiber resins	Hockanum River
Rogers Corp	Middlefield (Rockfall)	25	Plastics	None	4,000	Unknown	Coginchaug River
Middletown Beef Co	Middletown	30	Slaughtering	None	81,500	Animal Wastes, Blood	Connecticut River

(continued)

Appendix III

STATE OF CONNECTICUT
INDUSTRIES WITH SEPARATE DISCHARGES
CONNECTICUT RIVER BASIN

Industry	Location	Number of Employees	Principal Products	Treatment	Est. Average Daily Flow to River	Nature of Wastes	River
Remington Rand Div. Sperry Rand	Middletown	200	Office supplies, microfilm machine	None	38,500	Unknown	Little River
Russell Mfg. Co.	Middletown	300	Clutch facing, endless belts	None	344,000	Unknown	Sumner Brook
Fafnir Bearings Co	New Britain	3,720	Ball bearings	None	317,000	Acids, Cu, Cd	Piper Brook
Stanley Tools	New Britain	994	Hand tools	None	149,500	Acids, Oakite	Piper Brook
Landers, Frary, & Clark	New Britain	1,425	Household Appliances	None	134,000	Acid, Plating Salts	Piper Brook
Landers, Frary, & Clark	New Britain	350	Household Appliances	None	349,000	Acid, Plating Salts	Willow Brook
North & Judd Mfg Co	New Britain	650	Hardware	None	213,000	Acid, Cn, Alkali	Willow Brook
Cull Metal Specialties	Plainfield	55	Lamp sockets	None	17,000	Detergent, Acids	Pequabuck River
H.C. Baum & Co	Plainfield	10	Job plating	None	5,000	Alkali, Acids	Pequabuck River
Caper Thermometer Co	Plymouth (Pequabuck)	90	Thermometers	None	5,000	Acids	Pequabuck River
Gedney Elec Co.	Plymouth (Pequabuck)	250	Conduit fittings	None	83,000	Cd, Cn, Alkali	Pequabuck River

(continued)

Appendix III

STATE OF CONNECTICUT
INDUSTRIES WITH SEPARATE DISCHARGES
CONNECTICUT RIVER BASIN

Industry	Location	Number of Employees	Principal Products	Treatment	Est Average Daily Flow to River	Nature of Wastes	River
Eagle Lock Corp.	Plymouth (Terryville)	420	Locks	None	71,200	Cd, Cn, Alkali	Pequabuck River
Somersville Mfg Co	Somers (Somersville)	350	Woolen Cloth	None	102,000	Dyes, Acids, Soaps	Scantic River
Capital Products Co.	Winchester (Winsted)	75	Electrical appliances	None	23,700	Cu, Sodium Cyanide	Mad River
General Gilbert Adding Machine Co	Winchester (Winsted)	450	Adding Machines, Clocks	None	88,600	Acid, Oakite	Mad River
Waring Products Corp	Winchester (Winsted)	125	Household Appliances	None	67,400	Cn, Acids, Alkali	Mad River
Winsted Co.	" "	20	Pet supplies	None	16,500	Nickel, Chrome, Alkali	Mad River
Winsted Hosiery Co	" "	100	Knitwear	None	8,500	Acid, Dye	Still River
Combustion Engineering	Windsor	1,700	Knitwear, Boilers, & Experimental Work (Radioactive Wastes)	Unknown	200,000	Radioactive Waters, Chemicals	Farmington Riv.
C. H. Dexter & Sons, Inc.	Windsor Locks	386	Paper	Unknown	5,255,860	H_2O_2, Acid, Oil	Connecticut Riv

Appendix III

STATE OF CONNECTICUT
INDUSTRIES WITH SEPARATE DISCHARGES
THAMES RIVER BASIN

Industry	Location	Number of Employees	Principal Products	Treatment	Est. Average Daily Flow to River	Nature of Wastes	River
Ledge Hill Farm	Brooklyn	32	Poultry Dressing	None	8,500	Blood, Grease, Animal Wastes	White Brook
Rosen Poultry Co.	"	96	Poultry Slaughter	Septic Tank	236,200	" "	Quinebaug River
T. N. Wood Co.	So. Coventry	38	Braiding	None	5,600	Dyes, Soap	Mill Brook
Chas. Pfizer & Co.	Groton	1,236	Pharmaceuticals	None	330,450	Salts, Proteins	Thames River
Hale Mfg. Co. Reid Plant	Killingly (Ballouville)	140	Nylon yarn	None	59,750	Dye, Chrome, Acid	Five Mile River
Danielson Finishing Company, Inc.	Killingly (Danielson)	58	Textiles	None	607,800	Sugars, N_aOH, H_2O_2, Detergents	" " "
William Prym, Inc	Killingly (Dayville)	183	Forming Wire Cutting	None	317,000	Acid, Sn, Alkali, Salts	" " "
Rogers Corp Rogers Div	Killingly (Rogers)	227	Fibrous Material	Flotation	4,952,000	Soda ash, rug waste, coarse pulp.	Quinebaug River
Dow Chemical Co (Latex Section)	Ledyard (Allyn's Point)	15	Liquid Latex	Settling, Emulsion breaking, Flotation	2,061,500	Latex	Thames River
Dow Chemical Co. (Styrene Div.)	Ledyard (Allyn's Point)	202	Polystyrenes	Emulsion breaking	1,447,000	Volatile chemicals	Thames River

Appendix III

STATE OF CONNECTICUT
INDUSTRIES WITH SEPARATE DISCHARGES
THAMES RIVER BASIN

Industry	Location	Number of Employees	Principal Products	Treatment	Est. Average Daily Flow to River	Nature of Wastes	River
Federal Paperboard Company, Inc.	Montville	202	Folding box board	Settling	690,000	Fiber, pulp, coarse material clay, starch	Oxoboxo River
Continental Can Paper Products Div	Montville (Uncasville)	192	Paperboard retail boxes	None	1,313,000	Fiber, debris, coarse material, oil	Thames River
John J Doyle Sand & Gravel Co	Uncasville	27	Wash sand & ready mix concrete	None	207,700	S_1H, Organic matter	Oxoboxo River
Falls Co	Norwich	18	Cotton awning fabrics	None	3,000,000	Dye, Caustic Salts	Yantic River
Chambers Storck Corp.	Norwich	32	Photoengraving	None	1,600	Developer chrome, Cu, Cn	Shetucket River
Charter Oak Textile Print, Inc	Norwich (Occum)	27	Printed fabrics	None	900	Color pigments	Shetucket River
American Thermos Products Co	Norwich (Sunnyside)	500	Vacuum insulated products	Centrifugation	19,000	Oil	Thames River
" "	Norwich (Taftville)	225	" "	None	43,600	Acids, Ni, Cn	Shetucket Riv
Artistic Wire Products	Norwich (Taftville)	210	Wire kitchen ware goods	None	75,000	NaOH, $NiCl_3$, Cn	Shetucket Riv
Norwich Linen Service	Norwich (Taftville)	22	Laundry	None	100,000	Acid, Soap, Polyphosphates	" "

Appendix III

STATE OF CONNECTICUT
INDUSTRIES WITH SEPARATE DISCHARGES
THAMES RIVER BASIN

Industry	Location	Number of Employees	Principal Products	Treatment	Est. Average Daily Flow to River	Nature of Wastes	River
Yantic Woolen Mills, Inc.	Norwich (Yantic)	200	Textiles	None	10,000	Acid, Ammonia, Softeners	Yantic R.
Brunswick Worsted Mill, Inc.	Plainfield (Almyville)	100	Textiles	None	26,900	Dye, Detergents, Scouring, Liquors	Moosup R.
Carhill Combing Company	"	30	"	"	19,200	Detergent	Moosup R.
Royal Metal Mfg. Co.	Plainfield	450	Institutional furniture	"	84,900	Solvents	Horse Brook
Lisbon Textile Prints, Inc.	Plainfield (Wauregan)	62	Textiles	"	5,900	Peroxides, Pigments, Starch, Gum	Quinebaug R.
Preston Woolen Co.	Preston (Hallville)	80	Woolen piece goods	"	16,700	Dye, Detergents	Indiantown Brook
Balding Heminway Co., Inc.	Putnam	352	Thread	"	255,000	Dye, H_2O_2	Quinebaug R.
General Industries, Inc.	Putnam	42	Wire goods	"	1,950	Metallic dust, nickel salts	Little Dam Tavern Brook
Hale Mfg. Co.	Putnam	172	Nylon yarn & staple	"	32,300	Acid, Dye	Quinebaug R.
Baltic Litho	Sprague (Baltic)	2	Printed stationery	"	40	Developer, Hyposulphate	Beaver Br.

Appendix III

STATE OF CONNECTICUT
INDUSTRIES WITH SEPARATE DISCHARGES
THAMES RIVER BASIN

Industry	Location	Number of Employees	Principal Products	Treatment	Est. Average Daily Flow to River	Nature of Wastes	River
Baltic Mills Co	Sprague (Baltic)	390	Textiles	None	15,300	Unknown	Shetucket R
B.L. & S. Engravers, Inc.	Sprague (Baltic)	10	Textile copper print rolls	"	180	Acid, Asphalt, Varnish	Beaver Brook
Angus Park Woolen Co.	Sprague (Hanover)	156	Woolen cloth	"	100,300	Soap, Acid, Soda, Ash	Little River
Federal Paper Co. Inc.	Sprague (Versailles)	226	Paperboard	"	3,416,000	Pulp, Coarse Material, Colors, Starch, Chemicals	Little River
Case-Risley Press Paper, Inc	Sterling (Oneco)	35	Pressboard	"	105,100	Fiber, Clay	Moosup River
Webster Record Corp.	Thompson	60	Phonograph records	"	18,500	Cn, Cu, Ni, Acid	French River
Belding Corticelli Industries	Thompson (Grosvenordale)	102	Plastics	"	42,000	Methyl alcohol	" "
C.S. Allen Corp.	Thompson (No. Grosvenordale)	70	Candy	"	70,900	Sugar, detergents	" "

Appendix III

STATE OF CONNECTICUT
INDUSTRIES WITH SEPARATE DISCHARGES
THAMES RIVER BASIN

Industry	Location	Number of Employees	Principal Products	Treatment	Est. Average Daily Flow to River	Nature of Wastes	River
Sanitary Dash Mfg.Co Inc	Thompson (No Grosvenordale)	50	Plumbing supplies	None	29,400	Alkali,Ni, Cu,Cr	French River
American Thread Co	Windham (Willimantic)	1,647	Thread & yarn	"	5,809,000	Detergents, NaCl,Acid, Soap	Williman-tic Riv
Brick Top Laundry	" "	13	Laundry	"	19,000	Detergents	" "
Electro Motive Mfg. Co. Inc.	" "	250	Radio & TV capacitors	"	21,800	Salts,Acids	" "
Jones & Laughlin Steel Corp	" "	38	Cold finish steel	"	22,500	Acids,Oils	" "

Appendix IV

SUMMARY OF WASTE DISPOSAL FROM FEDERAL INSTALLATIONS

Basin	State	Volumes (mgd)				
		To Municipal Sewer	To Ground		To Surface Waters	
			Treated	Untreated	Treated	Untreated
Housatonic (NE-2)	Connecticut	0.585	0.029	-	0.424	0.100
	Massachusetts	0.228	0.002	-	-	-
	TOTAL	0.813	0.031	-	0.424	0.100
	PER CENT	59.4	2.3	-	31.0	7.3
Connecticut (NE-4)	Connecticut	0.194	0.072	-	8.112	-
	Massachusetts	0.643	0.187	-	1.550	-
	TOTAL	0.837	0.259	-	9.662	-
	PER CENT	8.1	2.4	-	89.5	-
Thames (NE-5)	Connecticut	0.371	0.003	0.001	-	0.417
	Massachusetts	0.002	0.002	-	1.025	-
	TOTAL	0.373	0.005	0.001	1.025	0.417
	PER CENT	20.5	0.3	0.04	56.3	22.9
3-BASIN TOTAL		2.022	0.395	0.001	11.111	0.519
PER CENT OF TOTAL		14.5	2.6	-	79.3	3.6

Appendix IV

FEDERAL INSTALLATIONS HAVING INADEQUATE* WASTE WATER DISPOSAL PRACTICES
LOCATED WITHIN
THE HOUSATONIC (NE-2), EASTERN CONNECTICUT COASTAL (NE-3),
CONNECTICUT (NE-4), AND THAMES (NE-5) DRAINAGE BASINS
STATE OF CONNECTICUT

Location	Basin		Instal-lation	Dept	Untrtd Sewage gpd	Industrial				Discharge Point	Status of Pollution and/or Abatement Activity
	Minor	Sub				gpd	code	%			
								trtd	cool		
Canaan	2		Nat Ind Res Pl	GSA		100,000	33	0	0	Blackberry River	Operating under permit to AEC. Lagoons in use have some overflow. No problem according to Conn Water Resources Comm 8/14/63. Ltr from Charles F. Dyer (GSA) 9/6/63.
Oakville	2	01	USPO	USPO		3,600	39	0	0	Steele Brook	Septic tank elim & all sewage disch to municipal sewer system. Storm water collected on bldg disch to brook. Ltr from Charles F. Dyer (GSA) 9/6/63.
Southington	3	04	Ind Res Aircr Pl	Defense Navy		605,000	34	0	40	Quinnipiac River	Acid wastes collected separately, hauled away for processing. Oil separation by flotation. Disch monitored continuously for pH. No complaints. Freq state health dept surveillance.
Milford	3	12	Biol Lab	Interior F&WL Serv		8,000	28	0	0	Milford Harbor	Sea water pumped to live boxes, tanks & laboratory trays & retd to harbor. No pollution problem.
Groton	5		Gen Dyn	Defense Navy	416,438					Thames River	Sold to Gen Dyn 2 December 1962 (not a federal installation).

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* Either untreated sewage or untreated industrial wastes at a rate exceeding 3000 gpd or non water-borne wastes of 200 or more persons.

Appendix IV

FEDERAL INSTALLATIONS HAVING INADEQUATE* WASTE WATER DISPOSAL PRACTICES
LOCATED WITHIN
THE HOUSATONIC (NE-2), CONNECTICUT (NE-4),
AND THAMES (NE-5) DRAINAGE BASINS
STATE OF MASSACHUSETTS

Location	Basin		Installation	Dept	Untrtd Sewage gpd	Industrial				Discharge Point	Status of Pollution and/or Abatement Activity
	Minor	Sub				gpd	code	% trtd	% cool		
Berkshire County	2		Berkshire Trout Hatchery	Interior F&WL Serv		432,000	39	0	0	Konkapot River	Flow-thru water. Disinfectants added occasionally as needed. Adequate dilution prior to discharge. No pollution problem.
Berkshire County	2	01	AF Plant #69	Defense AF	2,000	3,000	X	0	100	Ground	Facility being transferred from Air Force to Navy. Inspection pending further report from HQ 3d Naval District.

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* Either untreated sewage or untreated industrial wastes at a rate exceeding 3000 gpd or non water-borne wastes of 200 or more persons.

Appendix V

SOURCES OF WASTE - NEW ENGLAND AREA PAPER AND PULP INDUSTRY

MAINE

River Basin	Location	Name of Plant	Type of Plant	Estimated Number of Employees	Estimated Ave. Daily Plant Disch. (Gals)	Treatment	Estimated PE	Discharge To	Remarks
St. John	Madawaska	Fraser Paper Ltd	Paper Mill	801-900[6]	Unk	None[5]	15,500[5]	St. Johns	
St. Croix	Baileyville	St. Croix Paper Co.	Paper & Pulp Mill	501-600[6]	Unk	None[5]	210,000[5]	St. Croix	Complex Consists of 2 Pulp Mills & 1 Paper Mill[9]
Penobscot	Brener	Eastern Fine Paper & Pulp Div. Standard Packaging Corp.	Paper & Pulp Mill	(801-900)[6]	Unk	None[5]	529,000[5]	Penobscot	Complex Consists of 1 Paper Mill & 1 Sulphite Pulp Mill
	Bucksport	St. Regis Paper Co.	Pulp & Paper Mill	(601-700)[6]	Unk	None[5]	365,000[5]	Penobscot	Complex Consists of 1 Paper Mill & 2 Pulp Mills (ground wood & sulphite)[9]
	E. Millinocket	Great Northern Paper Co.	Paper & Pulp Mills	(1001-1500)[6]	Unk	None[5]	18,000[5]	Penobscot	Consists of 1 Paper Mill & 2 Pulp Mills[9]

MAINE (Cont'd)

	Lincoln	Eastern Fine Paper & Pulp Div. Standard Packaging Corp.	Paper & Pulp Mill	(501-600)[6]	Unk	None[5]	353,000[5]	Mattanawcook River	Consists of 1 Paper & 1 Pulp Mill[9]
	Millinocket	Great Northern Paper Co.	Paper & Pulp Mill	(801-901)[6]	Unk	None[5]	615,000[5]	Millinocket Stream	Consists of 1 Paper Mill & 2 Pulp Mills (groundwood & sulphite)
	Old Town	Penobscot Chemical Fibre Co.	Paper & Pulp Mill	(500-601)[6]	Unk	None[5]	477,000[5]	Penobscot	Complex consists of 1 Paper Mill 3 Pulp Mills[9]
Kennebec	Augusta	Kennebec Div. of Hudson Pulp & Paper Corp.	Paper & Pulp Mill	(451-500)[6]	Unk	None[5]	313,000[5]	Kennebec	Complex consists of 1 Paper Mill & 2 Pulp Mills[9]
	Gardiner	Gardiner Paper Mills Inc.	Paper Mill	(76-100)[6]	Unk	None	5,100[5]	Cobbossecontee Stream	
	Gardiner	S.D. Warren Co.	Paper & Pulp Mill	250[5]	Unk	None	1,200[5]	Kennebec	Complex consists of 1 Paper Mill & 1 Rag Pulp Mill

MAINE (Cont'd)

	Madison	Kennebec River Pulp & Paper Co.	Paper & Pulp Mill	(251-300)[6]	Unk	None	160,000[5]	Kennebec	Complex consists of 1 Paper Mill & 1 Groundwood Mill
	Madison	Scott Paper Co.	Groundwood Mill[9]	(76-100)[6]	Unk	None	3,000[5]	Kennebec	
	Winslow	Scott Paper Co.	Paper & Pulp Mill	(801-900)[6]	Unk	None	900,000	Kennebec	1 Paper Mill 1 Sulphite Pulp Mill
Androscoggin	Brunswick	Pejepscot Paper Co.	Paper & Pulp Mill	50[5]	Unk	None[5]	7,800[5]	Androscoggin	Complex consists of 1 Paper Mill & 1 Groundwood Mill[9]
	Chisholm	International Paper Co. Otis Mill	Paper & Pulp Mill	(801-900)[6]	Unk	Lagoons[5], holding	293,000	Androscoggin	Complex consists of 1 Paper Mill & Groundwood & Sulphite Mills
	E. Poland	Rogers Fibre Co. Inc.	Paper Mill	Unk	Unk	Unk	Unk	Little Androscoggin	All info from 9
	Lisbon Falls	U.S. Gypsum Co.	Insulating Board	150[1]	Unk	None[5]	21,000	Androscoggin	Complex consists of Insulating Board Mill, 2 Groundwood Mills

MAINE (Cont'd)

	Livermore Falls	International Paper Co.	Pulp Mill	Unk	Unk	None[5]	98,000[5]	Androscoggin	
	Mechanic Falls	Waterfalls Tissue Corp.	Paper Mill	(151-200)[6]	Unk	None[5]	30,000[5]	Little Androscoggin	
	Riley	International Paper Co.	Ground wood Mill[9]	(26-50)	Unk	None	Unk	Androscoggin	
	Rumford	Oxford Paper Co.	Paper & Pulp Mill	2,600[5]	Unk	None[5]	733,000[5]	Androscoggin	Complex consists of Paper Mill, Sulphate, & Groundwood Pulp Mills
Presumpscot	Westbrook	S.D. Warren Co.	Paper & Pulp Mill	2,800[5]	Unk	None[5]	97,000[5]	Presumpscot	Paper Mill & Sulphate Pulp Mill
Saco	Bar Mills	Rogers Fibre Co., Inc.	Paper Mill	Unk	Unk	Unk	Unk	Saco	All info from 9
North Maine Coastal	Belfast	Sherman & Co	Paper Mill	Unk	Unk	Unk	Unk	Unk	All info from 9

SOURCES OF WASTE - NEW ENGLAND AREA PAPER AND PULP INDUSTRY

NEW HAMPSHIRE

River Basin	Location	Name of Plant	Type of Plant	Estimated Number of Employees	Estimated Ave. Daily Plant Disch. (Gals)	Treatment	Estimated PE	Discharge to	Remarks
Androscoggin	Berlin	Brown Co.	Paper & Pulp	3,850[3]	Unk	Unk	Unk	Andro-scoggin	Complex consists of 2 Paper Mills & 3 Pulp Mills[9]
Merrimac	Ashland	Ashland Paper Mills Inc.	Paper Mill	120[1]	700,000[1]	Save Alls[5]	1,000[5]	Squam	
	Bennington	Monadnock Mills Inc.	Paper Mill	160[1]	5,040,000[1]	Settling[1] Tanks	1,750[5]	Contoocook	
	Concord (Penacook)	Penacook Fibre Co.	Paper Mill	20	250,000[1]	None	500[5]	Contoocook	
	W. Henniker	Contoocook Valley Paper Co.	Paper Mill	30[1]	Unk	Settling Tanks	160[5]	Contoocook	
	W. Hopkington	Hoague & Sprague Corp.	Paper Board Mill	82[1]	1,400,000	None	3,000[5]	Contoocook	

NEW HAMPSHIRE (Cont'd)

	Lincoln	Franconia Paper Corp.	Paper & Pulp Mill	500[1]	Unk	None	350,000(5)	E. Branch of Pemigewasset	Complex consists of Paper Mill & Sulphite Pulp Mill[9]
	Tilton	Johns Manville Corp. [9]	Paper Mill [9]	Unk	Unk	Unk	Unk	Belmont River	
Connecticut	Claremont	Claremont Paper Co.	Paper Mill	61[1]	2,500,000[1]	None	Unk	Sugar River	
	Claremont	Coy Paper Co. [9]	Paper Mill	Unk	Unk	Unk	Unk	Sugar River	Complex consists of 2 Paper Mills [9]
	Groveton	Groveton Papers Co. [9]	Paper & Pulp [9]	1000[1]	13,000,000[5]	None[5]	926,000[5]	Upper Ammonoosic	Complex consists of 2 Paper Mills & 2 Pulp Mills [9]
	Hinsdale	Ashuelot Paper Co.	Paper Mill	53[1]	250,000[1]	None	Unk	Ashuelot River	
	Hinsdale	Paper Service Mills Inc.	Paper Mill	40[3]	2,900,000[1]	None[5]	Unk	Ashuelot	

NEW HAMPSHIRE (Cont'd)

Hinsdale	G. E.[9] Robertson & Co.	Paper Mill[9]	Unk	Unk	Unk	Unk	Ashuelot	
Hinsdale	White[9] Washburne Co.	Paper Mill	Unk	Unk	Unk	Unk	Ashuelot	Complex consists of 2 Paper Mills
Northumberland	Wyoming Valley Paper Mill (Groveton Papers Co.)	Paper Mill	300[1]	4,900,000	None[5]	2400[5]	Connecticut	
Winchester	Winchester Paper Co. Inc.	Paper Mill	75[3]	560,000[5]	None[5]	Unk	Ashuelot	

Appendix V

SOURCES OF WASTE - NEW ENGLAND AREA
PAPER AND PULP INDUSTRY

VERMONT

River Basin	Location	Name of Plant	Type of Plant	Estimated Number of Employees	Estimated Ave. Daily Plant Disch. (Gals)	Treatment	Estimated PE	Discharge	Remarks
Upper Hudson	Bennington	Vermont Tissue Paper Co.	Paper Mill	10[1]	360,000[1]	None[1]	Unk	Walloomsac	Complex consists of Paper Mill & De-inked Pulp Mill
Lake Champlain	Sheldon Springs	Missisquoi Specialty Board Div. of Stand. Pkg. Corp.	Paper Mill Paper board Mill	250[1]	3,000,000[1]	None[1]	8000[5]	Missisquoi River	Complex consists of Paper Mill & Groundwood Pulp Mill
Connecticut	Bellows Falls	Green Mountain Tissue Co., Inc.	Paper Mill	Unk	220,000[1]	Save alls[1]	1000[5]	Connecticut	
	Bellows Falls	Hudson [9] Pulp & Paper Corp.	Paper Mill	Unk	1,200,000	None[1]	Unk	Connecticut	
	Bellows Falls	White [9] Mountain Paper Co., Inc.	Paper Mill	Unk	220,000	None[1]	2000[5]	Saxtons River[1]	

VERMONT (Cont'd)

Brattleboro[9]	Case Bros.[9] Inc.	Paper Mill[9]	Unk	Unk	Unk	Unk	Connecticut	
E. Ryegate	Ryegate Paper Co.	Paper Mill Pulp Mill	150[1]	1,800,000[1]	None[1]	3100[5]	Connecticut	Complex consists of Paper Mill & Groundwood Mill
Gilman	Gilman Paper Co.	Paper Mill	475[1]	4,300,000	None[1]	11,000[5]	Connecticut	
Newbury	Ben Mont-Dow Chemical Co.	Paper Mill	60[1]	400,000[1]	Unk[1]	600[5]	Wells River	
Putney	Putney Paper Co., Inc.	Paper Mill	Unk	1,000,000[1]	None[5]	Unk	Sacketts Brook	

SOURCES OF WASTE - NEW ENGLAND AREA
PAPER AND PULP INDUSTRY

MASSACHUSETTS

River Basin	Location	Name of Plant	Type of Plant	Estimated Number of Employees	Estimated Ave. Daily Plant Disch. (Gals)	Treatment	Estimated PE	Discharge to	Remarks
Merrimac	Amesbury	Amesbury [9] Fibre Corp.	Paper Mill	45[5]	Unk	None	1300[5]	Powow River	
	E. Pepperel	St. Regis [9] Paper Co.	Paper Mill	450[5]	3,000,000[8]	Save alls[5]	23,800[5]	North Nashua River	
	Fitchburg	Crocker Burbank Co.	Paper Mill	1000+[4]	16,500,000[8]	Settling Save alls	44,600(5)	North Nashua River	Complex consists of 9 Paper Mills
	Fitchburg	Fitchburg Paper Co.	Paper Mill	450[1]	4,165,000[8]	Settling[5]	72,900[5]	North Nashua River	Complex consists of 3 Mills
	Fitchburg	Falulah Paper Co.	Paper Mill	290[5]	Unk	Settling[5]	20,000[5]	North Nashua River	
	Haverhill	Continental[9] Can Co., Inc Robert Gair Paper Products Group	Paper Mill	Unk	Unk	Unk	Unk	Unk	All info from 9

MASSACHUSETTS (Cont'd)

	Lawrence	Meade Corp.	Paper board Mill	(100-249)[4]	Unk	Unk	Unk	Merrimack River	
	Lawrence	Merrimack Paper Co., Inc.	Paper Mill	(100-249)[4]	Unk	Unk	Unk	Merrimack River	
	Lawrence	Oxford Paper Co.	Pulp & Paper Mill	Unk	Unk	Unk	Unk	Merrimack River	All info from 9 - Consists of Paper & Soda Pulp Mill
	N. Leominster	Meade Corp.	Paper Mill	(100-249)	1,200,000	Save alls	5700	N. Nashua River	
	Natick	Continental Can Corp. Robert Gair Group	Paper Mill (boxboard)	(25-99) [4]	Unk	Unk	Unk	Unk	
	West Groton	Hollingsworth & Vose	Paper Mill	(100-249)[4]	Unk	Save alls[5] Settling	25,000[5]	Squanacook River	
	West Groton	Groton Leatherboard Co.	Paper Mill	156[5]	Unk	Save alls[5] recirculation	Unk	Squanacook River	
Mass Coastal	Boston	Tileston & Hollingsworth Co.	Paper Mill	(250-499)[4]	Unk	Save alls[5]	140[5]	Neponset	
	Boston	Union Boxboard Co.	Boxboard	Unk	Unk	Unk	Unk	Unk	All info from 9

MASSACHUSETTS (Cont'd)

	East Walpole	Hollingsworth & Vose	Paper Mill	275^5	Unk	Unk	Unk	Neponset	
	Walpole	Bird & Sons	Paper Mill	800^5	Unk	Settling^5	22,000^5	Neponset	
	Waltham	Stony Brook Paper Mill	Paper Mill	Unk	Unk	Unk	Unk	Unk	All info from 9
Hoosic	Adams	Brightwater Paper Co.	Paper Mill	(100-249)^4	Unk	Unk	Unk	Unk	
	Adams	Brown Paper Co.	Paper Mill	(100-249)^4	Unk	Unk	Unk	Unk	Complex consists of 2 Paper Mills
Connecticut	Baldwinville	Baldwinville Products Inc.	Paper Mill	75^8	Unk	Save alls^8	Unk	Otter River	
	Baldwinville	Seaman Paper Co.	Paper Mill	30^8	Unk	Save alls^8	8000^8	Otter River	No record in 9
	Becket	Berkshire Tissue Mills Inc.	Paper Mill	25^8	Unk	Save alls^8 Lagoons	1700^8	West Branch Westfield River	

MASSACHUSETTS (Cont'd)

Erving	Erving Paper Mills	Paper Mill	450[8]	Unk	None[8]	5200[8]	Miller River	
Erving	Millers Falls Paper Co.	Paper Mill	(100-249)[4]	Unk	Unk	Unk	Miller River	
Hardwick	Romar Tissue Mills Inc.	Paper Mill	(100-249)[4]	Unk	Unk	Unk	Unk	
Holyoke	American Writing Paper Corp.	Paper Mill	(1000)[8]	Unk	Save alls[8]	10,000[8]	Connecticut	Complex consists of 6 Paper Mills[9]
Holyoke	Chemical Fine Paper & Board Div. of Stand. Pkg. Corp.	Paper Mill Paper board Mill	(600)[8]	Unk	None[5]	5750[8]	Connecticut	Complex consists of 2 Paper Mills
Holyoke	Franklin Paper Co.	Paper Mill	25[8]	Unk	None[8]	900[8]	Connecticut	
Holyoke	National Vulcanized Fibre Co.	Paper Mill	(100-249)[4]	Unk	Unk	Unk	Connecticut	
Holyoke	Newton Paper Co. Inc.	Paper Mill	(100-249)[4]	Unk	Unk	Unk	Connecticut	

MASSACHUSETTS (Cont'd)

Holyoke	Valley Paper Co.	Paper Mill	210[8]	Unk	Save alls[8]	3000[8]	Connecticut River	
Holyoke	Whiting & Co.	Paper Mill	175[8]	Unk	None[8]	3200[8]	Connecticut River	Complex consists of 2 Paper Mills[9]
Monroe	Deerfield Glassine Co.	Paper Mill	150[8]	Unk	Flotation[8] Save alls	2200[8]	Deerfield River	
Montague	Strathmore[8] Paper Co.	Paper Mill	250[8]	Unk	Save alls[8] Controlled Flow	1500[8]	Connecticut River	
Montague	Esleeck Mfg. Co.	Paper Mill	195[8]	Unk	Save alls[8] Controlled Flows	600[8]	Connecticut River	
Palmer	Diamond National Corp.	Paper Mill	Unk	Unk	Unk	Unk	Unk	All info from 9
Russell	Strathmore Paper Co.	Paper Mill	500[8]	Unk	Flotation[8]	8000[8]	Westfield River	
Russell	Texon, Inc.	Paper board	100[8]	Unk	Lagoons[8] Flotation	200[8]	Westfield River	
Russell	Westfield River Paper Co.	Paper board	100[8]	Unk	Flotation[8]	Unk	Westfield River	
S. Hadley	Marcal Paper Mills Inc.	Paper board	(25-99)[4]	Unk	Unk	Unk	Connecticut River	

MASSACHUSETTS (Cont'd)

	S. Hadley	Anfra Industries Inc.	Paper Mill	Unk	Unk	Unk	Unk	Unk	All info from 9
	S. Hadley Falls	Stevens Paper Mills Inc.	Paper Mill	(250-499)[4]	Unk	Unk	Unk	Unk	
	S. Hadley Falls	Texon Inc.	Paper Mill	300	Unk	None[8]	Unk	Unk	
	Ware	Ludlow Papers Div. of Ludlow Corp.	Paper Mill	(250-499)[8]	Unk	Unk	Unk	Ware River	
	Westfield	Stevens Paper Mills Inc.	Paper Mill	(250)[8]	Unk	None[8]	Unk	Little River	Complex consists of 2 Paper Mills
	West Springfield	Premoid Corp.	Paper Mill	(150)[8]	Unk	None[8]	Unk	Westfield River	
	West Springfield	Southworth Co.	Paper Mill	(75)[8]	Unk	Save alls[8]	Unk	Westfield River	
	West Springfield	Strathmore Paper Co.	Paper Mill	(500)[8]	Unk	Save alls[8]	Unk	Westfield River	
Housatonic	Dalton	Byron Weston Co.	Paper Mill	(250-499)[4]	Unk	Unk	Unk	E. Branch Housatonic River	

MASSACHUSETTS (Cont'd)

	Dalton	Crane Co.	Paper Mill	(1000)[8]	Unk	Settling[8]	Unk	E. Branch of Housatonic River	Complex consists of 4 Paper Mills[9]
	Great Barrington	Rising Paper Co.	Paper Mill	245[8]	Unk	Save alls[8]	Unk	Housatonic River	
	Lee	Mountain Mill Div. of Westfield Paper Co.	Paper Mill	75[8]	Unk	Save alls[8]	Unk[8]	Housatonic River	
	Lee	Peter J. Schweitzer Div. of Kimberly Clark	Paper Mill	750[8]	Unk	Save alls[8]	Unk	Housatonic River	
	E. Lee	Westfield River Paper Co.	Paper Mill	(25-99)[4]	Unk	Unk	Unk	Unk	
	S. Lee	Hurlburt Paper Co.	Paper Mill	(150)[8]	Unk	Save alls[8]	670[8]	Housatonic	
Thames	Dudley	West Dudley Paper Co.			Unk	None[8]	27,400[8]	Quinnaboag	
Narragansett	Bridgewater	George O. Jacobs Co.	Paper Mill (Shoe board)	Unk	Unk	Unk	Unk	Unk	Complex consists of 2 Mills - All info from 9
	Taunton	Ad-A-Day Co.	Paper Mill	Unk	Unk	Unk	Unk	Unk	All info from 9

Appendix V

SOURCES OF WASTE - NEW ENGLAND AREA
PAPER AND PULP INDUSTRY

RHODE ISLAND

River Basin	Location	Name of Plant	Type of Plant	Estimated Number of Employees	Estimated Ave. Daily Plant Disch. (Gals)	Treatment	Estimated PE	Discharge To	Remarks
Narragansett	Phillipsdale	Bird & Son Inc.	Paper board Mill	Unk	Unk	Unk	Unk	Unk	All info from 9 - Complex consists of 2 Mills

Appendix V

SOURCES OF WASTE - NEW ENGLAND AREA
PAPER AND PULP INDUSTRY

CONNECTICUT

River Basin	Location	Name of Plant	Type of Plant	Estimated Number of Employees	Estimated Ave. Daily Plant Disch. (Gals)	Treatment	Estimated PE	Discharge to	Remarks
Connecticut	Colchester	C. H. Norton Co.	Paper Mill (fibre board)	25[10]	318,000[10]	Filtration[10] Lagoons	Unk	Salmon River	Sanitary treated by Septic Tank [10]
	E. Hartford	Case Brothers Inc.	Paper Mill (paper board)	66[10]	333,000[10]	Filtration[10]	Unk	Hockanum River	
	Burnside	Burnside Co., Inc.	Paper Mill	Unk	Unk	Unk	Unk	Unk	All info from 9
	E. Hartford	Sanitary Paper Mill Inc.	Paper Mill	80[10]	1,518,000[10]	None	Unk	Hockanum	Sanitary treated by Septic Tank
	Manchester	Case Bros. Highland Mill	Paper Mill (fibre board)	104[10]	248,000[10]	Settling Tank	Unk	Hop River	Sanitary treated by Septic Tank
	Manchester	Colonial Board Co.	Paper Mill (shoe board)	200[10]	850,000[10]	Settling & Lagoons	Unk	Lydall Brook	Complex consists of 2 Mills[9] Sanitary treated Septic Tank[10]

CONNECTICUT (Cont'd)

	Windsor	Stevens Paper Mills Inc.	Paper Mill (insulating board)	53^{10}	577,000^{10}	Filtration	Unk	Farmington	Complex consists of 2 Mills^{9} - Sanitary treated by Septic Tank
	Windsor Locks	C.H. Dexter & Sons	Paper Mill	386^{10}	5,254,000	Settling^{10}	Unk	Connecticut	
	Windsor Locks	United Paper Products Corp.	Paper Mill (corrugated medium)	17^{10}	159,000^{10}	None^{10}	Unk	Connecticut	
Housatonic	New Milford	Kimberly Clark Corp.	Paper Mill	445^{10}	2,400,000^{10}	Activated^{10} Sludge, Air Diffusion	Unk	Housatonic	
	Seymour	Seymour Paper Mills Inc.	Paper Mill	40^{10}	201,000^{10}	Flotation	Unk	Bladens River	
	Stratford	Tilo Co.	Roofing ^{10} Pulp Mill	250^{10}	142,000^{10}	Unk	Unk	Unnamed Stream	Sanitary to Municipal Sewer - ^{10} Complex consists of 2 Mills ^{9}
Connecticut Coastal	New Haven	Federal Paper Board Co.	Paper Mill (paper board)	1000^{10}	2,900,000	Flotation	Unk	Mill River	Sanitary to Municipal Sewer ^{10}

CONNECTICUT (Cont'd)

	New Haven	New Haven Board & Carton Co., Inc.	Paper Mill (paper board)	600[10]	2,000,000	Flotation	Unk	Mill River	Sanitary to Municipal Sewer [10]
	New Haven	Joseph Parker & Sons	Paper Mill	21[10]	130,000	Unk	Unk	Municipal Sewer	
Thames	Rogers	Rogers Corp.	Paper Mill	Unk	Unk	Unk	Unk	Unk	All info from 9
	Montville	Federal Paper Board Co. Inc.	Paper Mill (box board)	51[10]	690,000[10]	Settling Tanks	Unk	Oxoboxo River	Sanitary treated separately[10]
	Montville	Robinson Paper Box Co.	Paper Mill (paper board)	427[10]	833,000[10]	Chemicals	13,900[5]	Oxoboxo	Sanitary treated separately[10]
	Montville	Continental Can - Paper Products Div.	Paper board	192[10]	2,000,000[10]	None[10]	Unk	Thames	Sanitary treated Septic Tank
	Sprague	Federal Paperboard Co., Inc.	Paper board	226[10]	3,400,000[10]	Screen[10] Settling	18,300[5]	Little River	Sanitary treated in Septic Tank[10]
	Sterling	Case-Risley Press Paper Inc.	Paper Mill (press board)	35[10]	106,000[10]	None	Unk	Moosup River	Sanitary treated in Septic Tank [10]

References made are listed below:

1. 1957 Inventory of Municipal and Industrial Waste Facilities.
2. Selected Summaries of Industrial Waste Facilities by State. U.S. Public Health Service, January 1963.
3. Directory of Manufacturers and Manufactured Products, New Hampshire, June 1961.
4. Massachusetts Industrial Directory - 1962.
5. The Resources of the New England-New York Region, New England, New York Inter Agency Committee.
6. Information published by companies.
7. Report to Natural Resources & Power Subcommittee. Androscoggin River, Maine & New Hampshire - Federal Power Commission, July 1963.
8. Information from Water Pollution Control Agencies.
9. Lockwoods Directory of the Paper & Allied Trades - 1962.
10. Waste Water Disposal Practices of Connecticut Industries, January 1, 1962.

Appendix VI

SELECTED WATER QUALITY DATA*
HOUSATONIC RIVER AT BRIDGE NEAR ASHLEY FALLS

Date	Dissolved Oxygen (ppm)	BOD (ppm)	Coliforms (per 100 ml)
7/27/60	-	5.8	1,100
6/28/60	9.2	3.3	2,400
9/23/59	7.2	3.4	1,500
8/18/59	6.6	3.5	3,900
7/15/59	7.4	4.5	1,100
6/10/59	9.1	5.6	1,100

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* Data collected by State of Massachusetts

Appendix VI

SELECTED WATER QUALITY DATA
CONNECTICUT RIVER
JUST BELOW
NEW HAMPSHIRE-MASSACHUSETTS STATE LINE

Date	Dissolved Oxygen (ppm)	BOD (ppm)	Coliforms (per 100 ml)
6/25/62	8.0	2.9	3,000
7/16/62	7.0	2.5	2,300
7/30/62	8.3	4.9	1,200
8/13/62	7.6	1.9	4,400
8/28/52	7.2	1.1	5,900
9/10/62	7.7	3.1	4,400
10/1/62	8.0	1.5	2,800
10/15/62	9.3	4.3	9,000
11/5/62	11.6	1.6	9,000
11/26/62	12.6	1.0	1,600
12/17/62	13.1	2.9	6,100
1/2/63	12.6	0.8	2,400
1/29/63	12.1	1.1	3,100
2/18/63	11.4	1.2	2,800
3/5/63	11.2	1.7	4,200
3/25/63	11.5	1.4	3,000
4/15/63	12.8	1.3	1,000
5/6/63	11.2	0.8	1,000
5/27/63	9.8	1.3	1,700

Appendix VI

SELECTED WATER QUALITY DATA
CONNECTICUT RIVER
JUST BELOW
MASSACHUSETTS-CONNECTICUT STATE LINE

Date	Dissolved Oxygen (ppm)	BOD (ppm)	Coliforms (per 100 ml)
10/3/62	6.6	3.0	-
11/7/62	11.2	1.7	-
12/5/62	11.9	3.0	-
2/6/63	11.5	3.7	-
3/6/63	10.3	3.1	-
4/3/63	12.7	1.6	-
4/23/63	-	-	20,000
5/1/63	9.5	1.7	20,000
5/8/63	9.6	1.8	11,000
5/15/63	9.4	2.1	37,000
5/22/63	8.9	2.0	15,000
5/29/63	8.1	2.5	1,800
6/5/63	7.4	3.8	32,000
6/26/63	7.4	3.5	-
7/3/63	6.7	3.1	30,000
7/10/63	7.0	3.0	40,000
7/17/63	8.2	4.0	27,000
7/24/63	6.6	4.0	50,000
8/7/63	9.0	4.9	40,000
8/14/63	4.7	3.7	100
8/21/63	5.9	2.9	210,000
8/28/63	5.9	4.0	1,000
9/4/63	6.8	-	40,000

Appendix VI

SELECTED WATER QUALITY DATA*
QUINEBAUG RIVER AT MASSACHUSETTS-CONNECTICUT STATE LINE

Date	Color	Dissolved Oxygen (ppm)	BOD (ppm)	Coliforms (per 100 ml)
10/6/60	95	8.6	7.0	12,000
9/8/60	50	8	3.7	300
8/4/60	90	8.8	4.2	1,400
7/7/60	120	8.0	5.3	2,000
6/9/60	80	9.0	6	2,100
9/30/59	40	7.0	6.2	4,600
9/3/59	60	6.5	9.5	930
7/29/59	240	7.5	3.6	910
7/1/59	90	6.7	3.9	2,400
6/10/59	140	8.0	1.7	930

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* Data collected by State of Massachusetts

Appendix VI

SELECTED WATER QUALITY DATA*
FRENCH RIVER NEAR MASSACHUSETTS-CONNECTICUT STATE LINE

Date	Color	Dissolved Oxygen (ppm)	BOD (ppm)	Coliforms (per 100 ml)
10/6/60	40	4.0	12	200,000
9/8/60	80	-	260	700,000
8/4/60	70	6.1	16	200,000
7/7/60	50	6.8	11	560,000
6/9/60	60	7.1	12	60,000
9/30/59	50	4.6	13	1,100,000
9/3/59	70	5.4	15	43,000
7/29/59	75	4.3	7.3	46,000
7/1/59	70	1.5	21	24,000
6/10/59	-	3.3	250	46,000

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* Data collected by State of Massachusetts

APPENDIX 7-1

P.L. 500, TITLE III AND P.L. 660, SECTION 2b REVIEWS
OF
CORPS OF ENGINEERS PROJECTS IN CONNECTICUT

Name of Project	River Basin Minor	River Basin Sub	Project Location	Project Type	Review Year	Action
Bissell Brook Dam	4		Granby	Flood Control	1956	Vector Control Report and Review Comments
Bladen's River Dam	2		Seymour	Flood Control	1957	Vector Control Report & Rev. Comments
Branch Brook Dam	2		Waterbury	Flood Control	1958	Vector Control Report and Review Comments
Clam River Dam	4		Westfield	Flood Control	1957	Vector Control Report & Rev.Comments
Connecticut River--Wethersfield Cove	4		Hartford	Navigation Project	1961	- - - - - - - - - -
East Branch Dam	2		Torrington	Flood Control	1961	Vector Control Report and Review Comments
E. Branch Farmington R.	4		Barkhamsted	Flood Control	1957	Vector Control Report and Review Comments
E.Branch Salmon Brook I	4		Granby	Flood Control	1957	Vector Control Report and Review Comments
E.Branch Salmon Brook II	4		Granby	Flood Control	1957	Vector Control Report and Review Comments
Farmington Riv.-Colebrook	4		Winsted	Flood Control	1963	PENDING
Hall Meadow Brook Dam	2		Torrington	Flood Control	1960	Vector Control Report and Review Comments
Hancock Brook Dam	2		Waterbury	Flood Control	1957	Vector Control Report and Review Comments
Hop Brook Dam, Conn.	4		Simsbury	Flood Control	1957	Vector Control Report and Review Comments
Hop Brook Dam, Naugatuck	2		Seymour	Hurricane Protection	1957	Vector Control Report and Review Comments

(continued)

P.L. 500, TITLE III AND P.L. 660, SECTION 2b REVIEWS
OF
CORPS OF ENGINEERS PROJECTS IN CONNECTICUT

Name of Project	River Basin Minor	River Basin Sub	Project Location	Project Type	Review Year	Action
Housatonic River Flood Control	2		Stratford	Hurricane Protection	1963	Review Comments.
Little River Dam	2		Seymour	Flood Control	1957	Vector Control Report and Review Comments.
Mad River Dam	4		Winsted	Flood Control	1960	Review Comments
Meadow Pond Brook Dam	2		Naugatuck	Flood Control	1957	Vector Control Report and Review Comments
Mystic Harbor	5		Mystic	Hurricane Protection	1960	Review Comments
Negro Hill Brook Dam	2		Bristol	Flood Control	1957	Vector Control Report and Review Comments
Nepaug River Dam	2		Torrington	Flood Control	1957	Vector Control Report and Review Comments
New London	5		New London	Hurricane Protection	1962	Review Comments
Northfield Brook Dam	2		Thomaston	Flood Control	1957	Vector Control Report and Review Comments
Pawcutuck, Stonington, Conn.	5		Pawcutuck	Hurricane Protection	1959	Review Comments
Red Bridge Dam & Reservoir	5		Putnam	Flood Control	1957	Vector Control Report and Review Comments
Roaring Brook Dam	4		Unionville	Flood Control	1957	Vector Control Report and Review Comments

(continued)

P.L. 500, TITLE III AND PL. 660, SECTION 2b REVIEWS
OF
CORPS OF ENGINEERS PROJECTS IN CONNECTICUT

Name of Project	River Basin Minor	 Sub	Project Location	Project Type	Review Year	Action
Sandy Brook Dam II	4		Barkhamstad	Flood Control	1957	Vector Control Report and Review Comments
Scovill Dam	2		Waterbury	Flood Control	1956	Vector Control Report and Review Comments
Stamford, Conn.	1		Stamford	Hurricane Protection	1959	Review Comments
Still River Dam No. 1	4		Winsted	Flood Control	1957	Vector Control Report and Review Comments
Still River Dam No. 2	4		Winsted	Flood Control	1957	Vector Control Report and Review Comments
Sucker Brook	4		Winsted	Flood Control	1958	Review Comments
Thomaston Dam & Reservoir	2		Thomaston	Flood Control	1956	Vector Control Report and Review Comments
West Br. Farmington River	4		Barkhamstad	Flood Control	1958	Vector Control Report and Review Comments
West Br. Salmon Brook Dam	4		Windsor Locks	Flood Control	1957	Vector Control Report and Review Comments
Westport, Conn. Compo Beach	2		Westport	Hurricane Protection	1961	Review Comments
West Thompson Dam & Reservoir	5		W. Thompson	Flood Control	1963	Vector Control Report and Review Comments

P.L. 500, TITLE III AND P.L. 660, SECTION 2b REVIEWS
OF
CORPS OF ENGINEERS PROJECTS IN MASSACHUSETTS

Name of Project	River Basin Minor	River Basin Sub	Project Location	Project Type	Review Year	Action
Barre Falls Dam & Reservoir	4		Barre	Flood Control	1956	Vector Control Report & Review Comments
Buck River Dam	4		New Boston	" "	1957	" " " " " "
Clam River Dam I	4		Barkhamstad	" "	1957	" " " " " "
Chicopee River Basin	4		Monson	" "	1960	Review Comments
Colebrook River(Farmington)	4		Hartford,Conn.	" "	1958	Vector Control Report and Review Comments
Conant Brook Dam	4		Monson	" "	1959	" " " " " "
E. Brimfield Dam & Reservoir	5		E. Brimfield	" "	1956	" " " " " "
Hodges Village Dam & Reservoir	5		Hodges Village	" "	1958	" " " " " "
Littleville Dam - Middle Branch	4		Littleville	" "	1961	" " " " " "
Neponset River Flood Control	8		Canton	" "	1958	" " " " " "
New Bedford, Fairhaven, and Acushnet	8		New Bedford	Hurricane Protection	1960	" " " " " "
New Boston	4		New Boston	Flood Control	1958	Review Comments
North Nashua River	9		Fitchburg	Flood Control & Industrial Water	1963	PENDING
Sandy Brook Dam	4		Barkhamstad	" " " "	1963	Review Comments
Slocum Brook Dam	4		New Boston	Flood Control	1957	Vector Control Report and Review Comments

(continued)

P.L. 500, TITLE III AND P.L. 660, SECTION 2b REVIEWS

OF

CORPS OF ENGINEERS PROJECTS IN MASSACHUSETTS

Name of Project	River Basin Minor	River Basin Sub	Project Location	Project Type	Review Year	Action
Three Rivers Flood Protection	4		Palmer, Mass.	Hurricane Protection	1963	Review Comments
West Hill Dam	6		Uxbridge	Flood Control	1957	Review Comments
Westfield River	4		Westfield	Flood Control	1956	Review Comments
Westville Dam & Reservoir	5		Westville	Flood Control	1957	Vector Control Report and Review Comments
Worcester Diversion	6		Worcester	Flood Control	1956	Vector Control Report and Review Comments
Wareham, Mass.	8		Wareham	Hurricane Protection	1960	Vector Control Report and Review Comments

P.L. 500, TITLE III AND P.L. 660, SECTION 2b REVIEWS
OF
CORPS OF ENGINEERS PROJECTS IN NEW HAMPSHIRE

Name of Project	River Basin Minor	River Basin Sub	Project Location	Project Type	Review Year	Action
Beaver Brook Flood Control	4		Keene, N.H.	Flood Control	1963	Comprehensive Report Pending
Colebrook, New Hampshire	4		Colebrook,NH	Ice Jam Flood Control	1963	PENDING
Hopkinton-Everett Reservoir	9		Hopkinton, NH	Flood Control	1959	Vector Control Report & Review Comments
Livermore Falls	9		Lake Winipesaukee	Flood Control	1963	PENDING
Otter Brook Dam Reservoir	4		Keene, N.H.	Flood Control	1955	Vector Control Report and Review Comments
Pontook Dam and Reservoir	15		Dummer, N.H.	Flood Control, Recreation, & Power	1963	PENDING
Winnipesaukee Lake & River	9		Lake Winnipesaukee	Flood Control	1956	- - - - -

P.L. 500, TITLE III AND P.L. 660, SECTION 2b REVIEWS
OF
CORPS OF ENGINEERS PROJECTS IN RHODE ISLAND

Name of Project	River Basin Minor	River Basin Sub	Project Location	Project Type	Review Year	Action
Apponaug Cove, R.I.	8		Warwick, R.I.	Channel Improvements	1958	– – – –
Blackstone River	8		Blackstone Basin	Multi-purpose Study	1960	Review Comments
Narragansett Pier, R.I.	3		Narragansett	Hurricane Protection	1961	" "
Point Judith Pond Area	3		Point Judith	Hurricane Protection	1962	Review Comments

P.L. 500, TITLE III AND P.L. 660, SECTION 2b REVIEWS
OF
CORPS OF ENGINEERS PROJECTS IN MAINE

Name of Project	River Basin Minor	River Basin Sub	Project Location	Project Type	Review Year	Action
Androscoggin River	15		Mexico and Rumford	Flood Control & Municipal Water	1962	Review Comments
Passamaquoddy Tidal Power Survey	18		Eastport	Power Project	1958	Review Comments
Saco River Basin	12		Saco	Flood Control & Power Project	1962	Review Comments

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P.L. 500, TITLE III AND P.L. 660, SECTION 2b REVIEWS
OF
CORPS OF ENGINEERS PROJECTS IN VERMONT

Name of Project	River Basin Minor	River Basin Sub	Project Location	Project Type	Review Year	Action
Ball Mountain Dam and Reservoir	4		East Jamaica	Flood Control	1956	Vector Control Report and Review Comments
Gaysville Dam	4		Gaysville	Multi-purpose	1962	PENDING
N. Hartland Dam & Reservoir	4		Union Village	Flood Control	1958	Vector Control Report and Review Comments
N. Springfield Dam & Reservoir	4		N. Springfield	Flood Control	1956	Vector Control Report and Review Comments
The Island Dam	4		Londonderry	Flood Control	1959	PENDING
Townsend Dam and Reservoir	4		Townsend	Flood Control	1956	Vector Control Report and Review Comments
Victory Dam	4		St. Johnsbury	Flood Control	1957	Review Comments

P.L. 566, SOIL CONSERVATION SERVICE WORK PLANS IN CONNECTICUT

REVIEWED BY REGION I

Name of Project	Sponsoring Organizations	Project Location	Project Type	Review Year	Action
Blackberry R. Watershed	Commonw. of Mass.	Canaan, Conn. Norfolk, Conn.	Flood Control	1959	Vector Control Report and Review Comments
Furnace Brook & Middle River Dam	Hamden Soil Conservation Dist.	Stafford Springs	" "	1959	Vector Control Report and Review Comments
Meadow, Decker, & Mill Brooks	- - - - -	Hartford	" "	1956	Vector Control Report and Review Comments
N. Branch Park River, Conn.	Commissioner of Agriculture	Bloomfield Hartford	Flood Control & Channel Improvements	1959	Vector Control Report and Review Comments
Roaring Brook-Walnut Street Brook Watersheds	"	Hartford Co.	" " "	1957	- - - - -
Salmon Brook	"	Hartford Co. Litchfield Co.	" " "	1960	Project not feasible
S. Branch Park River, Conn.	"	Hartford Co.	" " "	1961	Vector Control Report and Review Comments

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P.L. 566, SOIL CONSERVATION SERVICE WORK PLANS IN MAINE

REVIEWED BY REGION I

Name of Project	Sponsoring Organizations	Project Location	Project Type	Review Year	Action
Cold River-Old Course Saco Watershed	Oxford Co. Soil Conservation Dist.	Stow	Flood Control	1962	Review Comments
Libby Brook Watershed	Central Aroostook SCD	Ft. Fairfield	Flood Control & Recreation	1963	No detailed review required

APPENDIX 7-9

P.L. 566, SOIL CONSERVATION SERVICE WORK PLANS IN MASSACHUSETTS

REVIEWED BY REGION I

Name of Project	Sponsoring Organizations	Project Location	Project Type	Review Year	Action
Baiting Brook	Middlesex Soil Conservation District-SuAsCo Watershed Assoc.	Framingham	Flood Control	1959	Vector Control Report and Review Comments
Bradley Brook Watershed	Hampshire Soil Conservation District	Easthampton	Flood Control	1963	Vector Control Report and Review Comments
Broad Brook	Hampshire SCD	Easthampton	Flood Control	1963	Vector Control Report and Review Comments
Clam River Watershed	Berkshire SCD	New Boston	Flood Control & Recreation	1963	PENDING
Monatiquot River	Norfolk SCD	Braintree	Flood Control	1959	Not a feasible project
Powdermill Brook Watershed	Hamden SCD	Westfield	Flood Control & Recreation	1961	No review required
Sudbury-Assabet-Concord R.	Middlesex SCD NE Worcester County SCD	Framingham	Flood Control	1959	Vector Control Report and Review Comments
Upper Quaboag R.	Southern Worcester Co. SCD NW Worcester Co.SCD	Warren	Flood Control	1961	Vector Control Report and Review Comments

P.L. 566, SOIL CONSERVATION SERVICE WORK PLANS IN NEW HAMPSHIRE

REVIEWED BY REGION I

Name of Project	Sponsoring Organizations	Project Location	Project Type	Review Year	Action
Ammonoosuc R. Watershed	Grafton County Soil Conservation District Coos County Soil Conservation Dist.	Grafton & Coos Counties	Flood Control	1957	Planning Suspended
Ash Swamp, Tannery, White and Black Brook Watershed	Cheshire County Soil Conservation District	Keene, N.H.	Flood Control	1960	Vector Control Report and Review Comments
Baboosic Brook Waterhsed	State of N.H.	Hillsborough County	Land Treatment	1956	Vector Control Report and Review Comments
Baker River Watershed	Grafton Co. SCD NH Water Res. Board	Plymouth	Flood Control & Recreation	1963	Vector Control Report and Review Comments
Bearcamp Watershed	Carroll County SCD	Carroll Co.	Flood Control	1959	Planning Suspended
Lost Nation Watershed	- - - - -	- - - -	Flood Control	1957	" "
Oliverian Brook Watershed	Grafton County SCD	Grafton Co.	Flood Control	1960	No detailed review
Otter-Garland-Indian Brooks Watershed	Coos Co. SCD Hillsborough County SCD	Lancaster	Flood Control	1958	PENDING
Souhegan River Watershed	Middlesex Co. SCD	Greenville	Flood Control Water Supply	1961	Vector Control Report and Review Comments

P.L. 566, SOIL CONSERVATION SERVICE WORK PLANS IN VERMONT

REVIEWED BY REGION I

Name of Project	Sponsoring Organizations	Project Location	Project Type	Review Year	Action
Lower Otter Creek	- - - -	Brandon	Flood Control	- -	No work plan to date
Middle Otter Creek	- - - -	"	" "	- -	" " " " "
Neshobe River Watershed	Otter Creek Soil Conservation District	"	Flood Control Channel Improvements	1962	Vector Control Report and Review Comments
Stevens-Grice-Rugg Brook	Franklin Co. SCD	St. Albans	Flood Control	- -	No work plan to date
Upper Missisquoi River	Vt. State Water Resources Board	Westfield, Lowell, Jay	Flood Control	1956	Vector Control Report and Review Comments
Upper Otter Creek	- - - -	Brandon	Flood Control	1957	No work plan to date
Walloomsac Watershed	Bennington Co. SCD	Bennington	" "	1957	No work plan to date

FEDERAL POWER COMMISSION LICENSING REVIEW
BY REGION I (1963)

Plant Name	Owner	River	Minor River Basin	Project License No.	Operating Characteristics	Action
Edwards Project	Bates Manufacturing Co.	Kennebec R.	16	2389	- - -	PENDING
Otis-Livermore Falls Project	International Paper Co.	Androscoggin R.	15	2375	Run of the River	Review Comments
Anson Project	Kennebec River Pulp & Paper Co.	Kennebec R.	16	2365	" " " "	PENDING
Abenaki Project	" "	"	16	2364	" " " "	"
Millinocket Lake Dam	Maine Public Service Co.	Millinocket Stream	18	2366	" " " "	Review Comments
Caribou Hydraulic Plant	" "	Aroostook R.	20	2367	- - - - -	PENDING
Great Works Project	Penobscot Chemical Fibre Co.	Penobscot	17	2312	Run of the River	Review Comments

Appendix VIII

POLLUTION COMPLAINTS
WESTERN CONNECTICUT COASTAL (NE-1)

Date	Area	Origin of Complaint	Nature of Complaint	Action Taken
CONNECTICUT				
May 59	Wilton	individual --fraternal organization	industrial waste	referred to state
Jun 63	Norwalk	individual	pollution from treatment plant effluent	referred to state; state advises problem will be resolved when New Canaan treatment plant goes into operation

Appendix VIII

POLLUTION COMPLAINTS

HOUSATONIC RIVER BASIN (NE-2)

Date	Area	Origin of Complaint	Nature of Complaint	Action Taken
CONNECTICUT				
Aug 62	Stratford	individual	industrial waste & sewage pollution	referred to state; river above Derby Dam has been classified; action has been taken to have industry & municipalities treat wastes; area below not classified
MASSACHUSETTS				
Jul 63	Stockbridge	individual	red weed pollution of Stockbridge Bowl	referred to state; corrective treatment being applied by municipality

Appendix VIII

POLLUTION COMPLAINTS
CONNECTICUT RIVER BASIN (NE-4)

Date	Area	Origin of Complaint	Nature of Complaint	Action Taken
CONNECTICUT				
Jul 62	New Britain	individual	pesticide pollution	referred to state; PHS technical assistance offered
Jul 62	Berlin	individual	pollution of the Mattabasset River	referred to state; no further information available
Oct 62	Hartford	individual	local water pollution	referred to local health department; no further information available
MASSACHUSETTS				
Apr 61	Hampden	individual	stream pollution	referred to state
Jun 62	Springfield	individual	stream pollution	referred to state
Sep 62	No Brookfield	individual	pollution of Nashua & Millers Rivers	referred to state
Jun 63	Greenfield	individual	pollution from paper mills (Millers River)	referred to state; state has active abatement program
Jun 63	Ludlow	individual	inadequate septic tank (Chicopee River)	referred to local board of health; coordinated with state; visited site

POLLUTION COMPLAINTS

THAMES RIVER BASIN (NE-5)

Date	Area	Origin of Complaint	Nature of Complaint	Action Taken
CONNECTICUT				
Jun 62	Gales Ferry	individual	sewage pollution from housing development	referred to state; state considering problem in reviewing plans for proposed treatment plant
Aug 62	Ledyard	individual	sewage pollution from housing development	referred to state; state limited size of housing development & requires tertiary treatment
Apr 63	Ledyard	individual	sewage pollution from housing development	referred to state; individual referred to earlier correspondence
Sep 63	Ledyard	individual	sewage pollution from housing development	dual treatment plant authorized with effluent from one plant to ground & from second plant to stream; effluent discharges now under state surveillance

Appendix IX

CONTRACT AWARDS - SEWAGE TREATMENT WORKS CONSTRUCTION *

1952 - 1963 (BY State)

YEAR	CONN	MAINE	MASS.	N.H.	R.I.	VERMONT
1952	$ 2,308,889.	$ 0.	$ 10,049.028.	$ 0.	$ 0.	$ 505,500.
1953	276,610.	291,646.	1,408,741.	0.	1,027,007.	107,000.
1954	1,541,806.	58,730.	1,043,088.	15,876.	2,668,171.	8,000.
1955	476,343.	306,259.	1,817,220.	360,948.	1,827,620.	40,600.
1956	1,745,867.	67,777.	1,871,474.	0.	4,156,640.	554,865.
1957	3,274,581.	86,475.	1,457,795.	386,725.	627,788.	0.
1958	3,600,203.	1,375,152.	11,878,845.	1,422,880.	463,717.	673,311.
1959	3,248,918.	420,398.	5,405,221.	1,852,235.	863,300.	2,635,034.
1960	3,858,898.	768,649.	7,503,751.	923,930.	675,055.	1,351,749.
1961	4,114,427.	325,574.	3,411,074.	0.	512,106.	945,137.
1962	7,071,011.	1,380,505.	15,119,996.	1,454,611.	13,474.	1,740,901.
1963 (1st half)	2,500,537.	2,844,050.	11,676,361.	2,284,238.	4,742,067.	3,135,174.
TOTALS	34,018,090.	7,925,215.	72,642,594.	8,701,443.	17,576,945.	11,697,271.

*Includes interceptors, outfalls, additions, enlargements, and alterations to plants, etc.

Appendix XI

FEDERALLY AIDED WASTE TREATMENT PROJECTS - STATE OF CONNECTICUT

Applicant	Type of Treatment	Facility	Cost	Fed. Grant	Status	Present Pop.	River Basin
Town of Bethel	secondary	STP-Of-Int.	1,336,200.	250,000.	U.Const.	5,624	NE-2
Branford Sewer Authority	secondary	STP	1,373,145.	250,000.	complete	2,371	NE-1
City of Bridgeport	primary	Add to STP	23,900.	7,170.	Gr. Off.	156,748	NE-1
Borough of Danielson	primary	STP	482,400.	WPC-144,720. APW- 96,480.	U.Const.	4,642	NE-5
Town of East Haven	Int.-P.S.	Int-Sewer	998,586.	250,000.	complete	21,388	NE-1
Town of Farmington	secondary	STP-Int	1,230,000.	250,000.	complete	10,813	NE-1
Town of Glastonbury	primary	STP-Of-Int.	499,706.	149,911.	complete	14,497	NE-4
Town of Greenwich		Int.Sewer	846,123.	250,000.	U.Const.	53,793	NE-1
Borough of Groton	primary	STP	238,500.	71,500.	Gr.Off.	10,111	NE-5
City of Meriden	secondary	STP	1,700,400.	250,000.	U.Const.	51,850	NE-1
Middletown Hospital (State Public Works Dept.)	secondary	STP-Int	849,000.	250,000.	Gr. Off.	33,250	NE-4
Town of Morris	primary	STP-Int	13,696.	4,108.	complete	1,135	NE-2
Town of New Canaan	secondary	STP	662,775.	198,832.	U.Const.	13,466	NE-1
City of New Haven	primary	STP rem.	218,313.	65,493.	complete	152,048	NE-1
Town of New Milford	secondary	STP-Int	410,349.	123,104.	complete	3,023	NE-2

FEDERALLY AIDED WASTE TREATMENT PROJECTS - STATE OF CONNECTICUT (cont'd)

Applicant	Type of Treatment	Facility	Cost	Fed. Grant	Status	Present Pop.	River Basin
City of Norwalk	primary	STP	133,000.	39,900.	U.Const.	67,775	NE-1
City of Norwich	primary	STP-Int.	1,517,696.	250,000.	complete	38,506	NE-5
City of Norwich		Int.Sewer	392,400.	APW-196,200.	U.Const.	38,506	NE-5
Town of Plymouth	secondary	STP-Int.Sewer	709,275.	212,782.	complete	8,981	NE-2
City of Rockville	secondary	STP	867,000.	250,000.	complete	9,478	NE-4
Rocky Hill(BPW) (Hartford Met. Dist.)		Int-Sewer rem.	300,000.	90,000.	Gr. Off.	7,404	NE-4
Town of Southington	secondary	STP	1,031,080.	250,000.	complete	9,952	NE-1
Tariffville Fire Dist.	primary	STP	77,100.	23,130.	U.Const.	965	NE-4
Thomaston Sewer Comm.	primary	STP-Int.Sew.	779,561.	233,868.	complete	3,579	NE-2
Town of Wallingford	secondary	STP-Of-Int	1,775,318.	250,000.	complete	29,920	NE-1
Watertown Fire Dist.	secondary	STP	390,000.	117,000.	Gr. Off.	14,837	NE-2
Town of Westport	secondary	STP-Of-Int	1,059,000.	250,000.	complete	20,955	NE-1
City of Willimantic	secondary	STP-Int	690,134.	207,040.	complete	13,881	NE-5
Town of Windsor Locks	primary	STP-Of-Int	549,309.	152,400.	complete	11,411	NE-4

Appendix XI

FEDERALLY AIDED WASTE TREATMENT PROJECTS - STATE OF MASSACHUSETTS

Page 1 of 6

Applicant	Type of Treatment	Facility	Elig Cost	Fed. Grant	Status	Population	River Basin
Town of Agawam	-	Int Sew	$ 149,840	$ 44,952	Complete	15,718	NE-4
Town of Agawam	-	Int Sew	253,646	75,143	Complete	15,718	NE-4
Town of Agawam	-	Int Sew	12,965	3,889	Complete	15,718	NE-4
Town of Agawam	-	Int Sew	302,500	151,250	Under Const	15,718	NE-4
Town of Amherst	Primary	STP, OF & Int	796,000	238,800	Under Const	10,306	NE-4
Ashburnham-Westminster	Primary	STP	44,503	13,350	Complete	3,805	NE-9
City of Attleboro	Secondary	STP	789,820	213,941 WPC) 180,968 APW)	Under Const	27,118	NE-6
Ayer - Bd of P.W.	Secondary	STP	480,999	144,299	Complete	3,323	NE-9
Town of Barnstable	Primary	Remodel STP	115,138	34,541	Complete	13,465	NE-8
Town of Barnstable	-	PS	20,000	6,000	Grant Offer	13,465	NE-8
Town of Bedford	-	PS, FM & Int	144,000	43,200	Grant Offer	10,969	NE-8
Billerica - Middlesex County	Secondary	STP	119,405	35,821	Complete	17,867	NE-9
Borden Colony (Comm of Mass)	Primary	STP & OF	48,948	14,684	Complete	4,150	NE-6
City of Boston	Primary	STP, OF & Int	334,560	100,368	Complete	697,197	NE-8
Boston (Met Dist Comm)	Primary	Ext to STP	2,672,450	250,000	Under Const	697,197	NE-8

Appendix XI

FEDERALLY AIDED WASTE TREATMENT PROJECTS - STATE OF MASSACHUSETTS (Cont'd)

Page 2 of 6

Applicant	Type of Treatment	Facility	Elig Cost	Fed. Grant	Status	Population	River Basin
Town of Braintree	-	Alt to Int	$ 17,973	$ 5,391	Complete	31,069	NE-8
Town of Braintree	-	Int & PS	430,000	129,000	Grant Offer	31,069	NE-8
Town of Bridgewater	Secondary	Add to STP	268,000	80,400	Grant Offer	4,296	NE-6
City of Brockton	Secondary	STP & Int	3,501,000	400,500 WPC) 1,350,000 APW)	Under Const	72,813	NE-6
Chelsea (Met Dist Comm)	-	STP	1,149,253	250,000	Complete	33,749	NE-8
Town of Concord	Primary	Add to STP & INT	687,000	206,100	Under Const	3,188	NE-9
Town of Dalton	-	Int Sew	635,299	190,589	Complete	6,436	NE-2
Dighton-Rehoboth School Dist	Primary	STP & OF	85,401	25,620	Complete	8,722	NE-6
Town of Dudley	-	Int Sew	18,900	5,670	Under Const	6,510	NE-5
Town of E. Longmeadow	Secondary	Add to STP	9,597	2,878	Complete	10,294	NE-4
Town of E. Longmeadow	-	Int Sew	249,449	74,834	Complete	10,294	NE-4
Town of E. Longmeadow	-	Int Sew	249,077	74,723	Under Const	10,294	NE-4
Town of Easthampton	Primary	STP, OF	501,550	150,465	Under Const	12,326	NE-4
City of Fall River	-	Ext to Int & Sew	939,700	250,000	Grant Offer	99,942	NE-6
Town of Greenfield	-	Ext to Int & Sew	179,000	53,700	Under Const	14,389	NE-4
Town of Hadley	Primary	STP, OF & INT	199,500	99,750 APW	Grant Offer	3,099	NE-4

FEDERALLY AIDED WASTE TREATMENT PROJECTS - STATE OF MASSACHUSETTS (Cont'd)

Applicant	Type of Treatment	Facility	Elig Cost	Fed Grant	Status	Population	River Basin
Hingham Sewer Comm.	-	PS	$ 109,500	$ 32,850	Grant Offer	15,378	NE-8
City of Holyoke	Primary	STP, OF & INT	2,200,000	850,000 APW) 250,000 WPC)	Grant Offer	52,689	NE-4
Town of Hudson	Primary	Remodel STP	533,825	160,147	Under Const	7,897	NE-9
Town of Ipswich	Primary	STP, OF & INT	466,904	140,071	Complete	4,617	NE-8
Town of Ipswich	Primary	Add to STP	77,500	38,750	Grant Offer	4,617	NE-8
Town of Lenox	Primary	STP	220,408	66,122	Under Const	1,713	NE-2
Leominster Sewer Comm.	-	Add to PS	43,050	12,915	Under Const	27,929	NE-9
Leominster Sewer Comm.	Secondary	Add to STP	1,183,700	355,110	Under Const	27,929	NE-9
Town of Lexington	-	INT	594,000	178,200	Grant Offer	27,691	NE-8
Town of Longmeadow	Primary	STP, OF & INT	603,010	180,902	Complete	10,565	NE-4
Town of Longmeadow	-	INT	300,000	90,000	Under Const	10,565	NE-4
Ludlow Sewer Comm.	-	STP & INT	88,964	26,689	Under Const	13,805	NE-4
Town of Mansfield	Secondary	Remodel STP	59,007	17,701	Complete	6,748	NE-8
City of Marlborough	-	INT	300,047	90,014	Under Const	18,819	NE-9
Marshfield Sewer Comm.	Primary	STP & OF	110,000	33,000	Complete	6,748	NE-8
Mattapoisett Old Rochester Sch Dist.	Secondary	STP	59,241	17,772	Complete	1,640	NE-8
Town of Maynard	Secondary	Remodel STP	56,500	16,950	Grant Offer	7,695	NE-9

FEDERALLY AIDED WASTE TREATMENT PROJECTS - STATE OF MASSACHUSETTS (Cont'd)

Applicant	Type of Treatment	Facility	Elig Cost	Fed Grant	Status	Population	River Basin
Town of Middleborough	Secondary	Add to STP	$151,000	$ 45,300	Under Const	6,003	NE-6
Town of Milford	Secondary	Remodel STP	358,430	105,000	Complete	13,722	NE-8
Town of Montague	Primary	STP, OF & INT	792,340	237,702	Under Const	7,836	NE-4
Town of No. Attleboro	Secondary	Remodel STP	36,477	10,943	Complete	14,477	NE-6
Town of No. Attleboro	Secondary	Exten STP	64,800	19,440	Complete	14,477	NE-6
Town of No. Attleboro	Secondary	Add to STP	56,000	16,800	Under Const	14,477	NE-6
No. Middlesex Sch Dist	Primary	STP	38,400	11,520	Complete	1,500	NE-9
Town of Nantucket	-	Remodel INT	63,588	19,076	Complete	2,804	NE-8
Town of Needham	-	Add to P.S.	45,000	13,500	Under Const	25,793	NE-8
City of Newburyport	Secondary	STP & INT	1,110,000	550,000-APW	Under Const	14,004	NE-9
Norfolk County(Met Dist Comm.)	-	INT	2,136,725	250,000	Complete	3,471	NE-8
City of North Adams	-	Exten INT	202,231	60,669	Complete	19,905	NE-31
City of Northampton	Primary	STP	675,614	202,684	Under Const	30,058	NE-4
City of Northampton	-	INT	250,196	75,058	Complete	30,058	NE-4
Town of Norwood	-	Exten INT	177,560	53,268	Under Const	24,898	NE-8
Town of Norwood	-	INT	46,900	14,070	Grant Offer	24,898	NE-8

FEDERALLY AIDED WASTE TREATMENT PROJECTS - STATE OF MASSACHUSETTS (Cont'd)

Applicant	Type of Treatment	Facility	Elig Cost	Fed Grant	Status	Population	River Basin
City of Pittsfield	Secondary	STP & INT	$2,500,000	$ 250,000	Under Const	57,879	NE-2
City of Pittsfield	-	INT	1,062,000	250,000	Complete	57,879	NE-2
City of Pittsfield	-	Ext INT	49,587	14,876	Complete	57,879	NE-2
City of Pittsfield	-	Ext INT	1,687,000	506,100	Grant Offer	57,879	NE-2
Town of Randolph	-	INT	888,700	250,000	Complete	8,900	NE-8
Town of Russell	Secondary	STP	88,853	26,655	Complete	1,366	NE-4
Town of Shrewsbury	Secondary	STP	1,190,000	250,000	Under Const	16,622	NE-6
Shrewsbury Bd of Sew Comm.	-	INT	675,000	202,500	Under Const	16,622	NE-6
Town of So. Hadley	Primary	STP, OF & INT	619,816	185,944	Complete	14,956	NE-4
City of Springfield	-	INT	353,864	106,159	Complete	174,463	NE-4
City of Springfield	Primary	Remodel STP	189,850	56,955	Complete	174,463	NE-4
City of Springfield	-	Ext INT	89,899	26,969	Complete	174,463	NE-4
City of Springfield	Primary	Add to STP	94,670	28,400	Under Const	174,463	NE-4
City of Springfield	-	Ext INT	48,997	14,699	Complete	174,463	NE-4
Town of Sunderland	Secondary	STP	91,374	27,412	Complete	1,279	NE-4
Town of West Springfield	-	INT	840,000	250,000	Under Const	24,924	NE-4

FEDERALLY AIDED WASTE TREATMENT PROJECTS - STATE OF MASSACHUSETTS (Cont'd)

Applicant	Type of Treatment	Facility	Elig Cost	Fed Grant	Status	Population	River Basin
Town of Wakefield	–	INT	$ 153,267	$ 45,980	Complete	24,295	NE-8
Town of Wakefield	-	Ext INT	57,777	17,333	Under Const	24,295	NE-8
Westwood (MDC)	-	INT	608,144	182,443	Complete	10,354	NE-8
Town of Westwood	-	INT	174,698	52,409	Complete	10,354	NE-8
Town of Westwood	-	INT	249,978	75,000	Under Const	10,354	NE-8
Town of Warren	Secondary	STP & INT	481,800	240,900	Grant Offer	1,616	NE-4
Town of Ware	Primary	STP & INT	626,800	313,400	Grant Offer	6,650	NE-4
Weymouth Bd of Public Works	-	INT	244,000	73,200	Under Const	48,177	NE-8
Town of Williamstown	Primary	STP, OF, INT	896,502	250,000	Under Const	5,428	NE-31
Wilmington (MDC)	-	INT	930,709	250,000	Complete	2,250	NE-8
City of Woburn	-	INT	96,085	28,825	Complete	31,214	NE-8
City of Woburn	-	INT	54,115	16,234	Under Const	31,214	NE-8
City of Worcester	Primary	Add to STP	19,711	5,913	Complete	186,587	NE-6

FEDERALLY AIDED WASTE TREATMENT PROJECTS - STATE OF RHODE ISLAND

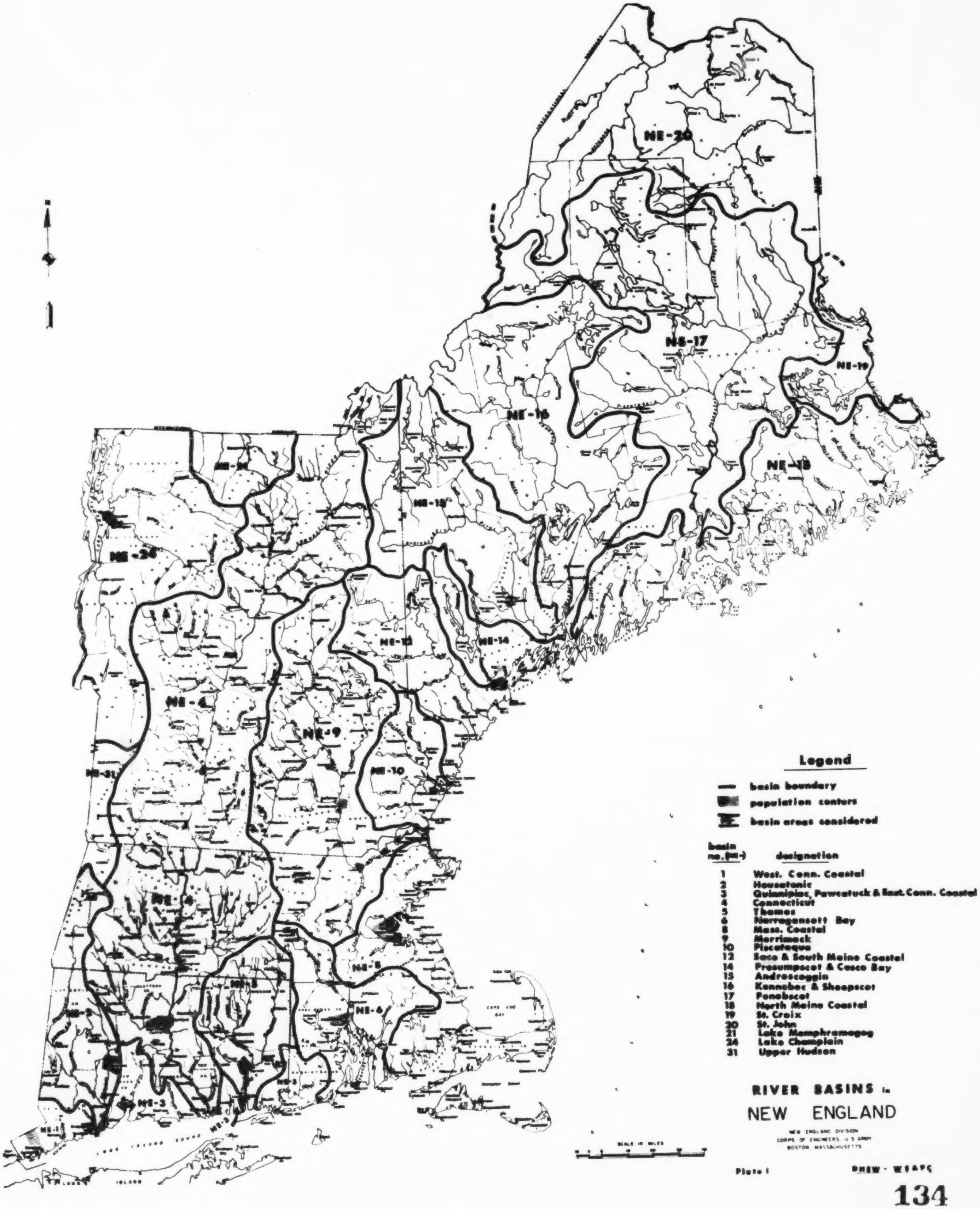
Applicant	Type of Treatment	Facility	Elig Cost	Fed. Grant	Status	Population	River Basin
Burrillville (R.I. Dir. of Admin.)	Secondary	Add to STP	$ 179,000	$ 53,700	Grant Offer	1,200	NE-6
Charlestown (R.I. Dir of Admin.)	Primary	STP & Int	21,800	6,540	Grant Offer	1,966	NE-3
City of Cranston	Secondary	Alt to STP	17,000	5,100	Complete	66,766	NE-6
City of Cranston	Secondary	STP & Int	390,032	117,009	Complete	66,766	NE-6
City of Cranston	-	Ext Int	496,000	148,800	Under Const	66,766	NE-6
City of Cranston	Secondary	Add to STP	62,500	18,750	Grant Offer	66,766	NE-6
City of Cranston	-	Ext Int	584,376	33,750 WPC) 239,000 APW)	Under Const	66,766	NE-6
City of Cranston	Secondary	Add to STP, FM, PS	2,430,100	600,000 WPC) 1,215,050 APW)	Grant Offer	66,766	NE-6
Blackstone Valley Sewer District	-	Ext Int	1,045,375	250,000 WPC) 68,300 APW)	Under Const	164,969	NE-6
Blackstone Valley Sewer District	Secondary	Add to STP	414,442	124,333	Complete	164,969	NE-6
Exeter (State of R.I.)	Secondary	STP	293,759	88,127	Complete	4,500	NE-6
City of E. Providence	-	Int	66,155	19,846	Under Const	41,955	NE-6
University of R.I.	Secondary	STP, OF & Int	400,000	120,000	Grant Offer	3,500	NE-6
Town of Middletown	Primary	STP, OF & Int	1,208,250	250,000	Grant Offer	12,675	NE-6

Appendix XI

FEDERALLY AIDED WASTE TREATMENT PROJECTS - STATE OF RHODE ISLAND (Cont'd)

Pg 2 of 2

Applicant	Type of Treatment	Facility	Elig Cost	Fed. Grant	Status	Population	River Basin
Town of Middletown	Primary	Int	$ 164,702	$ 49,410	Complete	12,675	N E-6
Town of Middletown	-	Int	31,417	9,425	Complete	12,675	NE-6
Town of Narragansett	Primary	STP, Int, PS & FM	413,600	206,800	Grant Offer	1,741	NE-6
City of Newport	-	Int	178,141	53,442	Complete	47,049	NE-6
Portsmouth High School Bldg Comm	Secondary	STP & OF	144,200	43,260	Grant Offer	7,778	NE-6
City of Providence	Secondary	Alt to STP	566,303	169,890	Complete	207,498	NE-6
City of Providence	Secondary	STP	420,696	126,208	Under Const	207,498	NE-6
City of Providence	-	Alt to Int	84,860	25,458	Under Const	207,498	NE-6
City of Providence	Secondary	Add to STP	337,500	101,250 WPC) 67,500 APW)	Under Const	207,498	NE-6
City of Providence	Secondary	Add to STP	962,500	288,750 WPC) 192,500 APW)	Under Const	207,498	NE-6
Town of Warren	-	Add to Int	127,500	38,250	Grant Offer	8,750	NE-6
City of Warwick	Secondary	STP	63,727	19,118	Under Const	68,504	NE-6
City of Warwick	Secondary	STP & Int	4,297,000	600,000 WPC) 1,548,500 APW)	Under Const	68,504	NE-6
Town of West Warwick	Secondary	Add to STP	74,393	22,317	Complete	21,414	NE-6
Westerly Pub Wrks Comm.	Primary	STP & OF	563,407	169,022	Complete	9,698	NE-3
City of Woonsocket	Primary	STP	2,080,000	600,000 WPC) 440,000 APW)	Under Const	47,080	NE-6

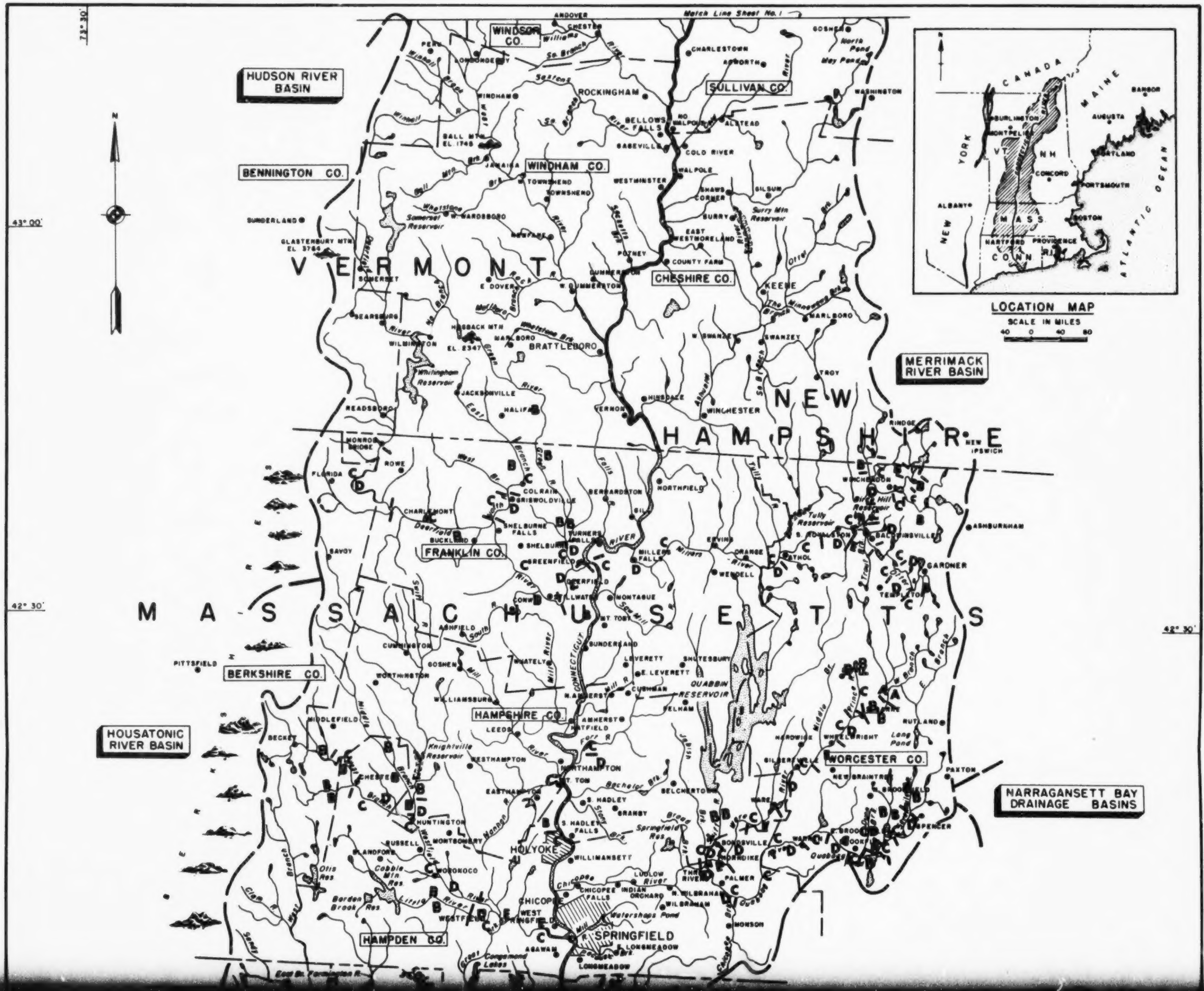

N
NE-20
NE-17
NE-19
NE-16
NE-18
NE-15
NE-21
NE-24
NE-12
NE-14
NE-4
NE-9
NE-10
NE-31
NE-8
NE-5
NE-6
NE-3
NE-1
NE-2
CAPE COD BAY
LONG ISLAND SOUND
LONG ISLAND
SCALE IN MILES
Legend
basin boundary
population centers
basin areas considered
basin no. (NE-)
designation
1 West. Conn. Coastal
2 Housatonic
3 Quinnipiac, Pawcatuck & East. Conn. Coastal
4 Connecticut
5 Thames
6 Narragansett Bay
8 Mass. Coastal
9 Merrimack
10 Piscataqua
12 Saco & South Maine Coastal
14 Presumpscot & Casco Bay
15 Androscoggin
16 Kennebec & Sheepscot
17 Penobscot
18 North Maine Coastal
19 St. Croix
20 St. John
21 Lake Memphramagog
24 Lake Champlain
31 Upper Hudson

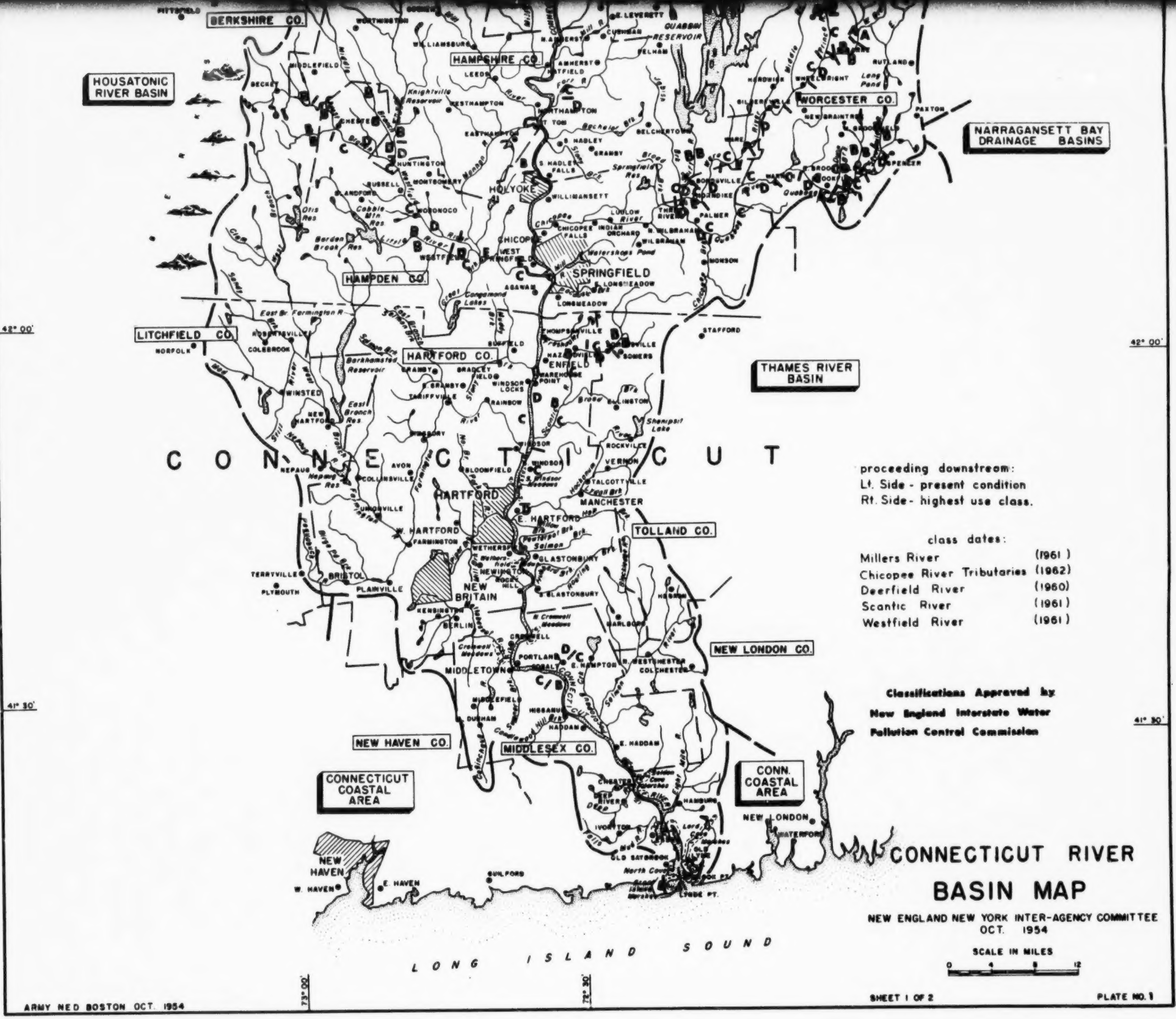
RIVER BASINS in
NEW ENGLAND

NEW ENGLAND DIVISION
CORPS OF ENGINEERS U.S. ARMY
BOSTON, MASSACHUSETTS

Plate I

DHEW - WSAPC


Match Line Sheet No. 1
73° 30'
43° 00'
42° 30'
HUDSON RIVER BASIN
BENNINGTON CO.
WINDSOR CO.
WINDHAM CO.
SULLIVAN CO.
CHESHIRE CO.
VERMONT
NEW HAMPSHIRE
MASSACHUSETTS
MERRIMACK RIVER BASIN
FRANKLIN CO.
BERKSHIRE CO.
HAMPSHIRE CO.
WORCESTER CO.
HAMPDEN CO.
HOUSATONIC RIVER BASIN
NARRAGANSETT BAY DRAINAGE BASINS
QUABBIN RESERVOIR
CONNECTICUT RIVER
BRATTLEBORO
KEENE
HOLYOKE
CHICOPEE
SPRINGFIELD
NORTHAMPTON
PITTSFIELD
GLASTENBURY MTN EL. 3764
BALL MTN EL. 1745
HAYSTACK MTN EL. 2347
LOCATION MAP
SCALE IN MILES
40 0 40 80
CANADA
MAINE
NEW YORK
VT
NH
MASS
CONN
RI
ATLANTIC OCEAN


HOUSATONIC RIVER BASIN
BERKSHIRE CO.
HAMPSHIRE CO.
WORCESTER CO.
NARRAGANSETT BAY DRAINAGE BASINS
HAMPDEN CO.
LITCHFIELD CO.
HARTFORD CO.
THAMES RIVER BASIN
TOLLAND CO.
NEW LONDON CO.
NEW HAVEN CO.
MIDDLESEX CO.
CONNECTICUT COASTAL AREA
CONN. COASTAL AREA
CONNECTICUT
LONG ISLAND SOUND
QUABBIN RESERVOIR
HOLYOKE
SPRINGFIELD
CHICOPEE
HARTFORD
E. HARTFORD
MANCHESTER
NEW BRITAIN
MIDDLETOWN
NEW HAVEN
NEW LONDON
42° 00'
41° 30'
73° 00'
72° 30'
ARMY NED BOSTON OCT. 1954

proceeding downstream:
Lt. Side - present condition
Rt. Side - highest use class.

class dates:

Millers River	(1961)
Chicopee River Tributaries	(1962)
Deerfield River	(1960)
Scantic River	(1961)
Westfield River	(1961)

Classifications Approved by New England Interstate Water Pollution Control Commission

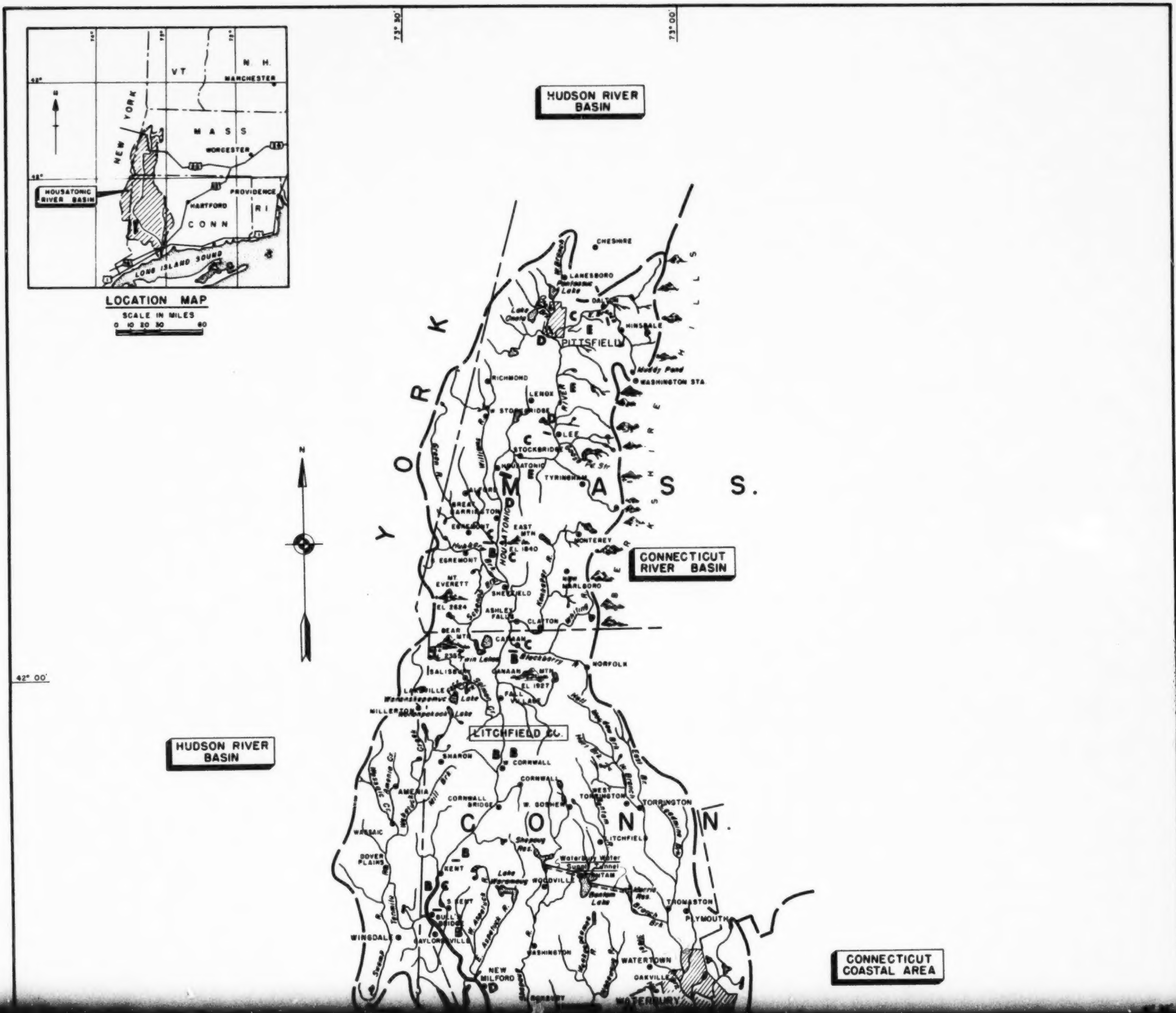
CONNECTICUT RIVER BASIN MAP

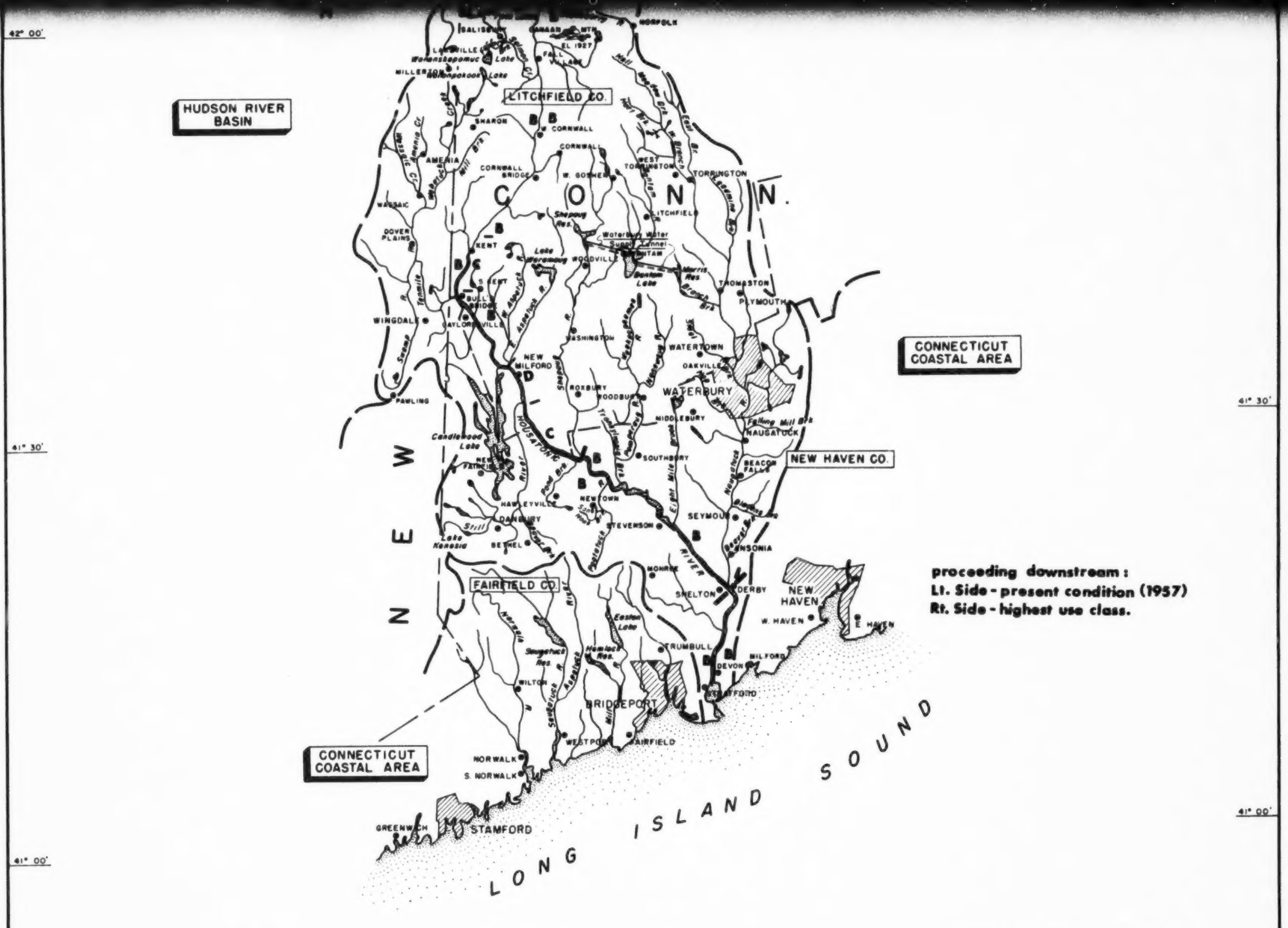
NEW ENGLAND NEW YORK INTER-AGENCY COMMITTEE
OCT. 1954

SCALE IN MILES
0 4 8 12

SHEET 1 OF 2

PLATE NO. 1


LOCATION MAP
SCALE IN MILES
0 10 20 30 60
VT
N. H.
MANCHESTER
NEW YORK
MASS
WORCESTER
PROVIDENCE
HARTFORD
CONN
R I
LONG ISLAND SOUND
HOUSATONIC RIVER BASIN
73° 30'
73° 00'
42° 00'
N
HUDSON RIVER BASIN
CONNECTICUT RIVER BASIN
CONNECTICUT COASTAL AREA
N. Y O R K
M A S S.
C O N N.
LITCHFIELD Co.
CHESHIRE
LANESBORO
Pontoosuc Lake
DALTON
Lake Onota
PITTSFIELD
HINSDALE
Muddy Pond
WASHINGTON STA.
RICHMOND
LENOX
RIVER
W. STOCKBRIDGE
LEE
STOCKBRIDGE
HOUSATONIC
TYRINGHAM
ALFORD
GREAT BARRINGTON
EGREMONT
EAST MTN
EL 1840
MONTEREY
Green R
Williams R
Hubbard
S. EGREMONT
MT. EVERETT
EL 2624
SHEFFIELD
NEW MARLBORO
ASHLEY FALLS
CLAYTON
BEAR MTN
EL 2355
CANAAN
Twin Lakes
Blackberry R
NORFOLK
SALISBURY
CANAAN MTN
EL 1927
LAKEVILLE
Wononskopomuc Lake
MILLERTON
Wononpakook Lake
FALLS VILLAGE
SHARON
W. CORNWALL
CORNWALL
AMENIA
CORNWALL BRIDGE
W. GOSHEN
WEST TORRINGTON
TORRINGTON
WASSAIC
DOVER PLAINS
LITCHFIELD
Shepaug Res.
Waterbury Water Supply Tunnel
BANTAM
Bantam Lake
Morris Res.
KENT
Lake Waramaug
WOODVILLE
S. KENT
THOMASTON
PLYMOUTH
BULLS BRIDGE
WINGDALE
GAYLORDSVILLE
WASHINGTON
WATERTOWN
NEW MILFORD
OAKVILLE
WATERBURY
ROXBURY
Still R
Ten Mile R
Swamp R
Webatuck Cr
Mill Bro
Hall Mdw Bro
East Br
W Branch
Naugatuck R
Aspetuck R
Shepaug R
B
C
D
E


HUDSON RIVER BASIN
CONNECTICUT COASTAL AREA
CONNECTICUT COASTAL AREA
LITCHFIELD CO.
NEW HAVEN CO.
FAIRFIELD CO.
C O N N.
N E W
LONG ISLAND SOUND
HOUSATONIC RIVER
SALISBURY
CANAAN
NORFOLK
MILLERTON
SHARON
CORNWALL
CORNWALL BRIDGE
W. GOSHEN
TORRINGTON
WEST TORRINGTON
LITCHFIELD
AMENIA
WASSAIC
DOVER PLAINS
KENT
S. KENT
BULLS BRIDGE
GAYLORDSVILLE
WINGDALE
PAWLING
NEW MILFORD
WOODVILLE
BANTAM
Bantam Lake
Shepaug Res.
Lake Waramaug
Waterbury Water Supply Tunnel
Morris Res.
THOMASTON
PLYMOUTH
WASHINGTON
ROXBURY
WOODBURY
WATERTOWN
OAKVILLE
WATERBURY
MIDDLEBURY
NAUGATUCK
Falling Mill Brk
SOUTHBURY
BEACON FALLS
Candlewood Lake
NEW FAIRFIELD
HAWLEYVILLE
NEWTOWN
DANBURY
BETHEL
Lake Kenosia
STEVENSON
SEYMOUR
ANSONIA
MONROE
SHELTON
DERBY
NEW HAVEN
W. HAVEN
E. HAVEN
Easton Lake
Saugatuck Res.
Hemlock Res.
TRUMBULL
WILTON
BRIDGEPORT
DEVON
MILFORD
STRATFORD
WESTPORT
FAIRFIELD
NORWALK
S. NORWALK
STAMFORD
GREENWICH
B
C
D
42° 00'
41° 30'
41° 00'
73° 30'
73° 00'

proceeding downstream:
Lt. Side - present condition (1957)
Rt. Side - highest use class.

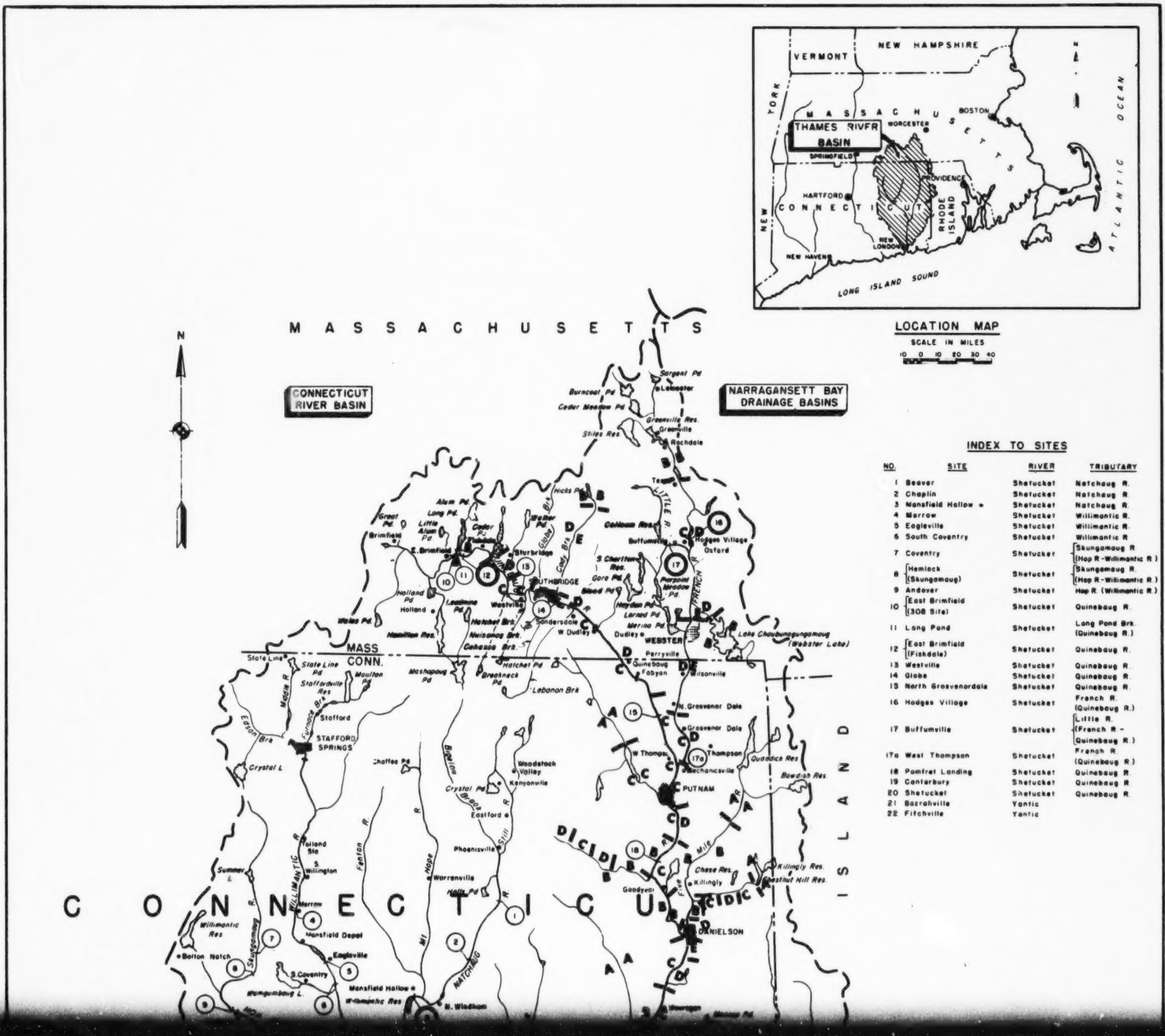
Classifications Approved by
New England Interstate Water Pollution Control Commission

HOUSATONIC RIVER
BASIN MAP

NEW ENGLAND NEW YORK INTER-AGENCY COMMITTEE
AUGUST 1954
SCALE IN MILES
0 4 8 12

ARMY NED BOSTON JAN. 1953 REV (1) AUGUST 1954

PLATE 2

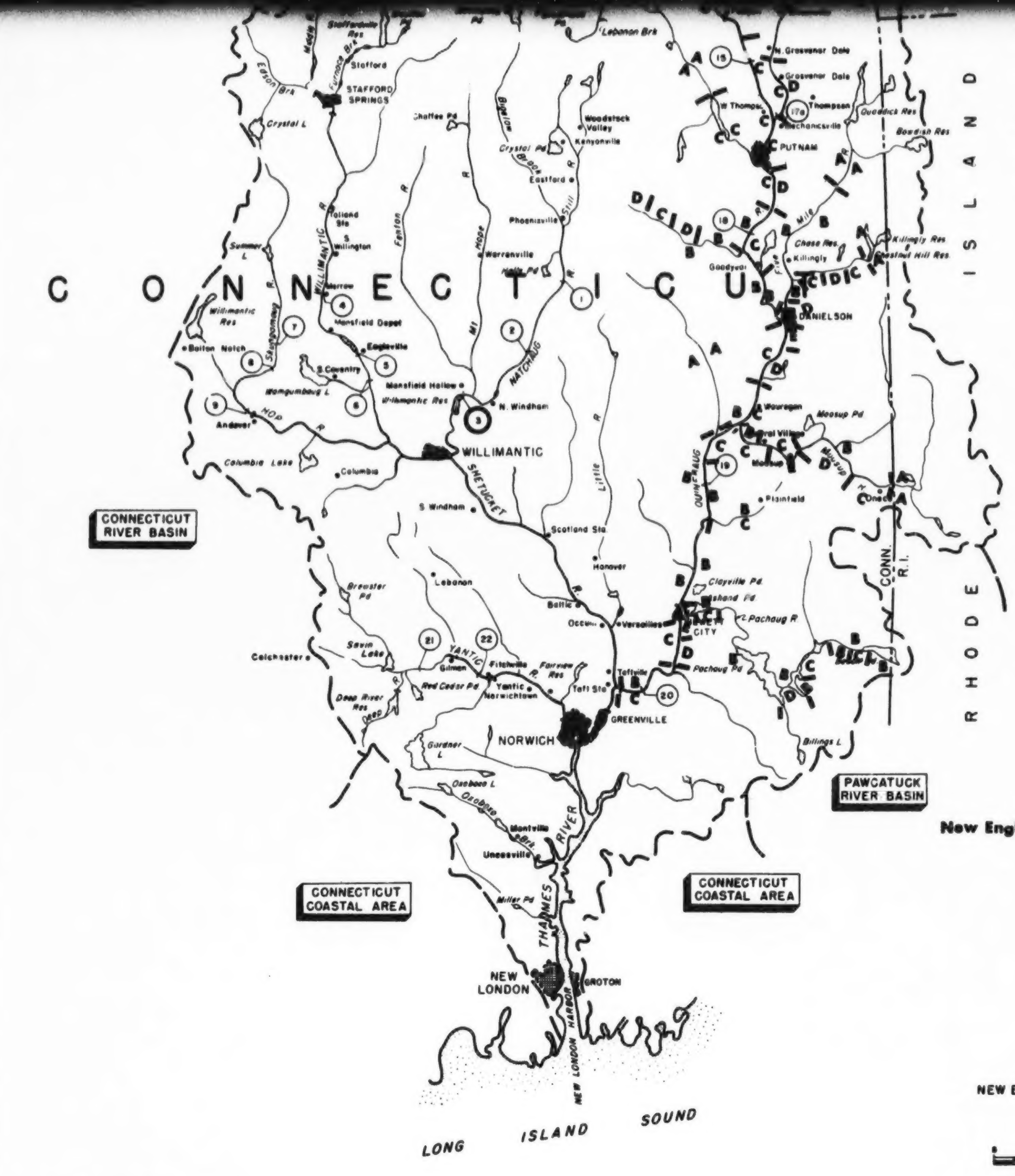


VERMONT
NEW HAMPSHIRE
NEW YORK
MASSACHUSETTS
BOSTON
WORCESTER
THAMES RIVER BASIN
SPRINGFIELD
PROVIDENCE
HARTFORD
CONNECTICUT
RHODE ISLAND
NEW LONDON
NEW HAVEN
LONG ISLAND SOUND
ATLANTIC OCEAN
N
LOCATION MAP
SCALE IN MILES
10 0 10 20 30 40
MASSACHUSETTS
CONNECTICUT RIVER BASIN
NARRAGANSETT BAY DRAINAGE BASINS
MASS
CONN.
CONNECTICUT
RHODE ISLAND
N
Sargent Pd
Leicester
Burncoat Pd
Ceder Meadow Pd
Greenville Res.
Greenville
Rochdale
Stiles Res
Hicks Pd
Cedar Pd
Alum Pd
Long Pd
Little Alum Pd
Great Pd
Brimfield
E. Brimfield
Sturbridge
Walker Pd
Globe Brk
Cady Brk
Holland Pd
Holland
Leadmine Pd
SOUTHBRIDGE
Westville
Hatchet Brk
Nuisance Brk
Cohasse Brk
Wales Pd
Hamilton Res.
Sondersdale
W Dudley
S Charlton Res.
Gore Pd
Glood Pd
Hayden Pd
Larned Pd
Merino Pd
Dudley
WEBSTER
Perryville
Lake Chaubunagungamaug (Webster Lake)
Buffumville
Hodges Village
Oxford
Pierpoint Meadow Pd
LITTLE R.
FRENCH R.
Colloum Res
State Line
State Line Pd
Moulton Pd
Stoffordville Res
Mashapaug Pd
Hatchet Pd
Breakneck Pd
Lebanon Brk
Quinebaug
Fabyan
Wilsonville
N. Grosvenor Dale
Grosvenor Dale
W Thompson
Thompson
Mechanicsville
Quaddick Res
Bowdish Res
PUTNAM
Middle R
Edson Brk
Crystal L
Furnace Brk
Stafford
STAFFORD SPRINGS
Chaffee Pd
Bigelow
Crystal Pd
Brook
Still R.
Woodstock Valley
Kenyonville
Eastford
Phoenixville
Warrenville
Hope R
Fenton R.
Mt Hope
Tolland Site
S. Willington
WILLIMANTIC R.
Merrow
Mansfield Depot
Eagleville
Summer L
Willimantic Res
Bolton Notch
Skungamaug
S. Coventry
Wamgumbaug L.
Mansfield Hollow
Willimantic Res
N. Windham
NATCHAUG
Five Mile R
Chase Res.
Killingly
Killingly Res.
Chestnut Hill Res.
Goodyear
DANIELSON
A B C D E
1 2 4 5 6 7 8 9 10 11 12 14 15 16 17 17a 18

INDEX TO SITES

NO.	SITE	RIVER	TRIBUTARY
1	Beaver	Shetucket	Natchaug R.
2	Chaplin	Shetucket	Natchaug R.
3	Mansfield Hollow *	Shetucket	Natchaug R.
4	Merrow	Shetucket	Willimantic R.
5	Eagleville	Shetucket	Willimantic R.
6	South Coventry	Shetucket	Willimantic R
7	Coventry	Shetucket	Skungamaug R (Hop R - Willimantic R.)
8	Hemlock (Skungamaug)	Shetucket	Skungamaug R. (Hop R.-Willimantic R.)
9	Andover	Shetucket	Hop R. (Willimantic R.)
10	East Brimfield (308 Site)	Shetucket	Quinebaug R.
11	Long Pond	Shetucket	Long Pond Brk. (Quinebaug R.)
12	East Brimfield (Fiskdale)	Shetucket	Quinebaug R.
13	Westville	Shetucket	Quinebaug R.
14	Globe	Shetucket	Quinebaug R.
15	North Grosvenordale	Shetucket	Quinebaug R.
16	Hodges Village	Shetucket	French R. (Quinebaug R.)
17	Buffumville	Shetucket	Little R. (French R. - Quinebaug R.)
17a	West Thompson	Shetucket	French R. (Quinebaug R.)
18	Pomfret Landing	Shetucket	Quinebaug R.
19	Canterbury	Shetucket	Quinebaug R
20	Shetucket	Shetucket	Quinebaug R.
21	Bozrahville	Yantic	
22	Fitchville	Yantic	

14	[illegible]	Shetucket	Quinebaug R.
15	North Grosvenordale	Shetucket	Quinebaug R.
16	Hodges Village	Shetucket	French R. (Quinebaug R.)
17	Buffumville	Shetucket	Little R. (French R - Quinebaug R.)
17a	West Thompson	Shetucket	French R. (Quinebaug R.)
18	Pomfret Landing	Shetucket	Quinebaug R.
19	Canterbury	Shetucket	Quinebaug R
20	Shetucket	Shetucket	Quinebaug R
21	Bozrahville	Yantic	
22	Fitchville	Yantic	


CONNECTICUT
RHODE ISLAND
CONN.
R.I.
CONNECTICUT RIVER BASIN
PAWCATUCK RIVER BASIN
CONNECTICUT COASTAL AREA
CONNECTICUT COASTAL AREA
LONG ISLAND SOUND
STAFFORD SPRINGS
Stafford
WILLIMANTIC
PUTNAM
DANIELSON
NORWICH
GREENVILLE
NEW LONDON
GROTON
THAMES RIVER
NEW LONDON HARBOR
SHETUCKET
QUINEBAUG
NATCHAUG
YANTIC
Little R
Willimantic R
Mansfield Hollow
Willimantic Res
N. Windham
S Windham
Scotland Sta
Hanover
Baltic
Versailles
Taftville
Jewett City
Plainfield
Moosup
Wauregan
Killingly
Goodyear
Thompson
Grosvenor Dale
N. Grosvenor Dale
W Thompson
Mechanicsville
Colchester
Lebanon
Columbia
Andover
Bolton Notch
Montville
Uncasville
Fitchville
Gilman
Yantic
Norwichtown
Eagleville
Mansfield Depot
Phoenixville
Warrenville
Eastford
Woodstock Valley
Kenyonville

proceeding downstream:
Lt. Side - present condition
Rt. Side - highest use class.
class. dates:
quinebaug riv. (1954)
french riv. (1954)

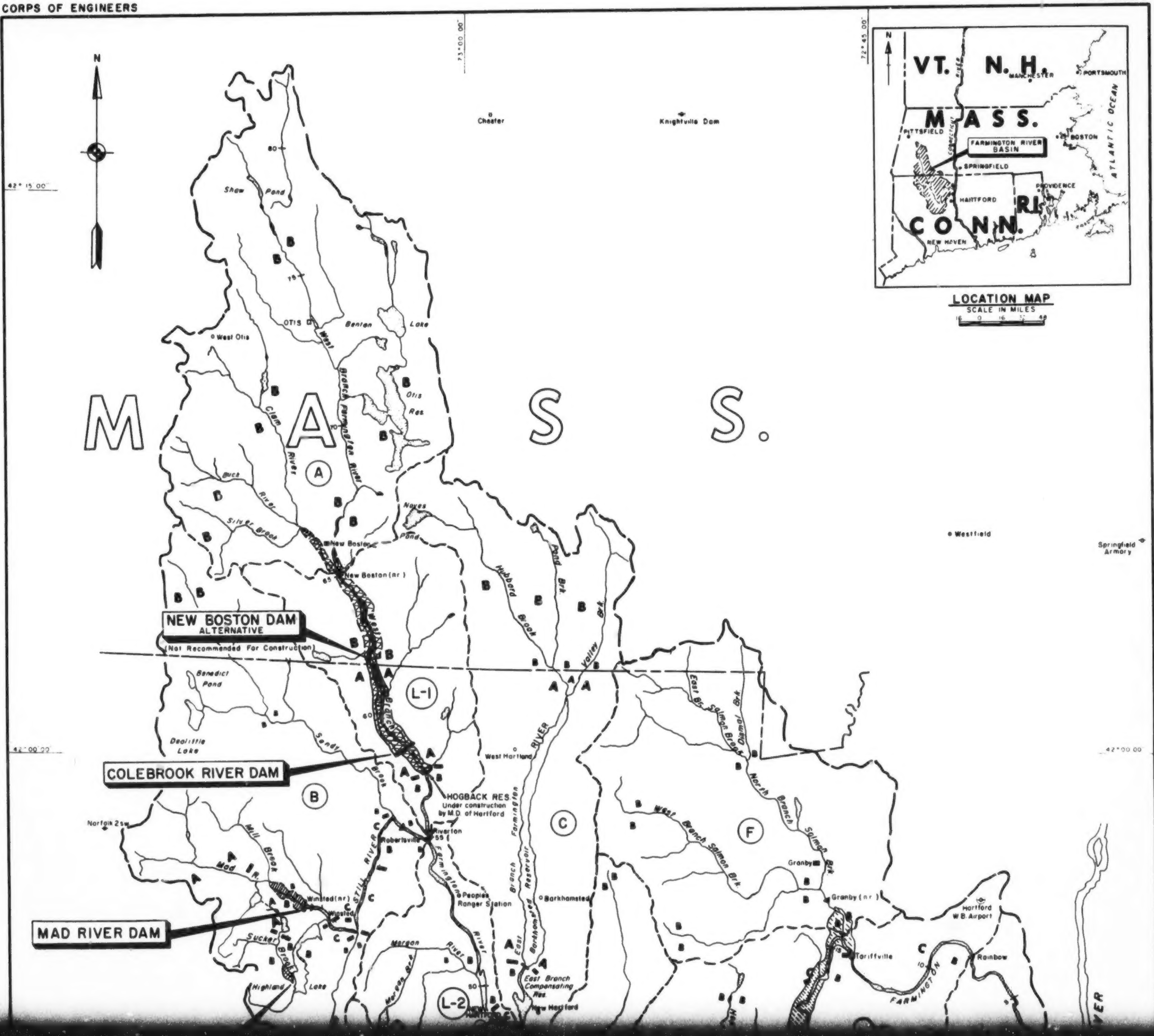
Classifications Approved by
New England Interstate Water Pollution
Control Commission

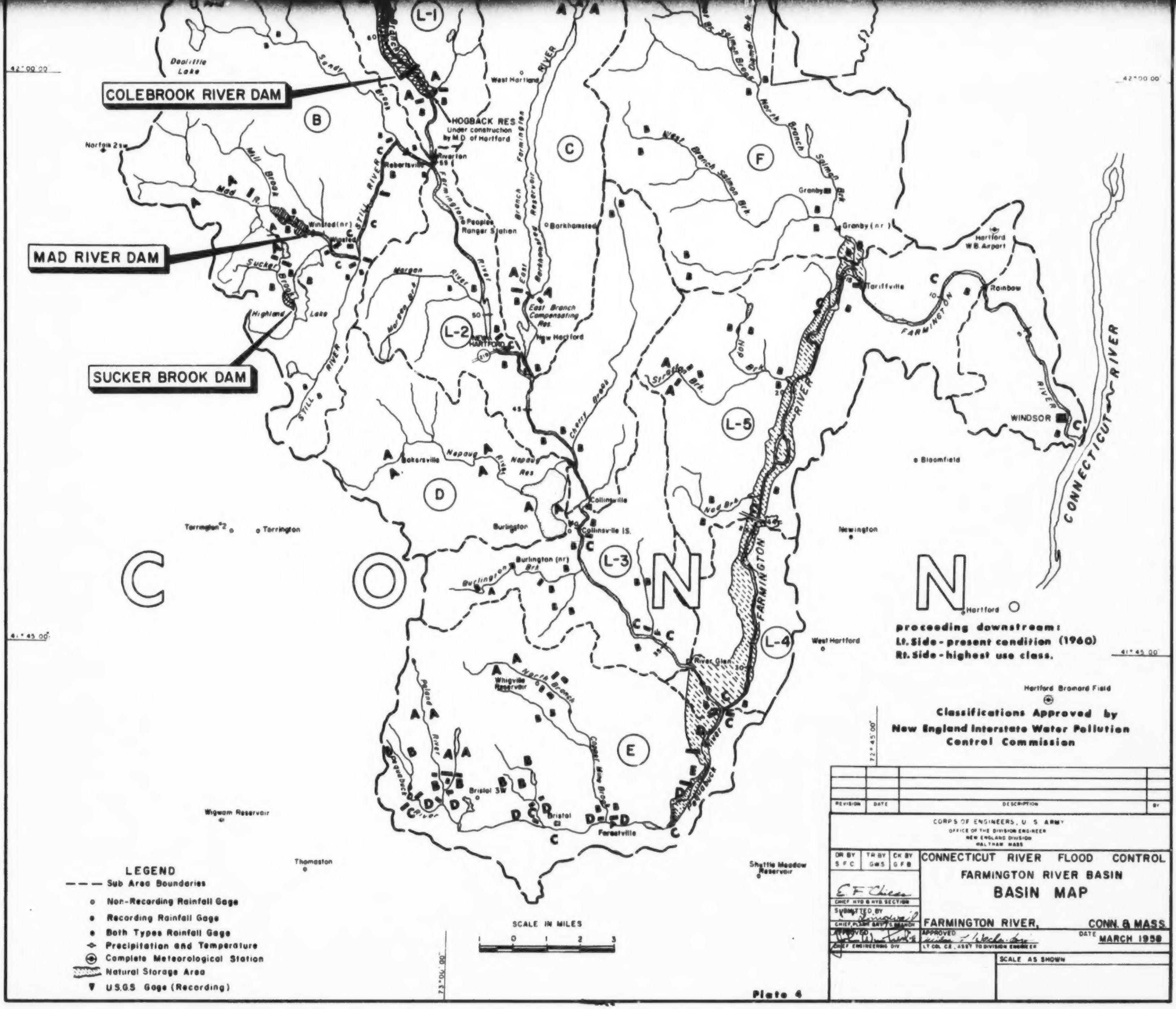
THAMES RIVER
BASIN MAP

NEW ENGLAND NEW YORK INTER-AGENCY COMMITTEE
SEPTEMBER 1954
SCALE IN MILES
0 5 10

ARMY NED BOSTON SEPT. 1954

PLATE NO. 3


VT.
N.H.
MANCHESTER
PORTSMOUTH
MASS.
PITTSFIELD
BOSTON
ATLANTIC OCEAN
FARMINGTON RIVER BASIN
SPRINGFIELD
PROVIDENCE
HARTFORD
R.I.
CONN.
NEW HAVEN
LOCATION MAP
SCALE IN MILES
M A S S.
Chester
Knightville Dam
Westfield
Springfield Armory
Shaw Pond
OTIS
West Otis
Benton
Lake
Otis Res.
West Branch Farmington River
Clam River
Buck River
Silver Brook
Noyes Pond
New Boston
New Boston (nr)
Hubbard Brook
Pond Brk.
Valley Brk.
NEW BOSTON DAM ALTERNATIVE (Not Recommended For Construction)
Benedict Pond
Doolittle Lake
Sandy Brook
COLEBROOK RIVER DAM
HOGBACK RES. Under construction by M.D. of Hartford
West Hartland
Farmington River
East Branch Farmington
Barkhamsted Reservoir
Barkhamsted
East Branch Compensating Res.
New Hartford
Riverton
Robertsville
Peoples Ranger Station
Norfolk 2sw
Mill Brook
Mad R.
Winsted (nr)
Winsted
Still River
MAD RIVER DAM
Sucker Brook
Highland Lake
Morgan Brk.
Morgan River
East Br. Salmon Brook
Dismal Brk.
North Branch Salmon Brk.
West Branch Salmon Brk.
Granby
Granby (nr)
Tariffville
Hartford W.B. Airport
Rainbow
FARMINGTON
A
B
C
F
L-1
L-2
42°15'00"
42°00'00"
73°00'00"
72°45'00"
N


COLEBROOK RIVER DAM
MAD RIVER DAM
SUCKER BROOK DAM
HOGBACK RES
Under construction by M.D. of Hartford
CONNECTICUT RIVER
FARMINGTON RIVER
STILL RIVER
Doolittle Lake
Sandy Brook
Mill Brook
Mad R.
Sucker Brook
Highland Lake
Morgan River
Nepaug River
Nepaug Res
Cherry Brook
Burlington Brk
Poland River
Pequabuck River
Copper Mine Brook
North Branch
Whigville Reservoir
East Branch Farmington
Barkhamsted Reservoir
East Branch Compensating Res.
West Branch Salmon Brk
North Branch Salmon Brk
Stratton Brk
Hop Brk
Nod Brk
West Hartland
Riverton
Robertsville
Winsted (nr)
Winsted
Peoples Ranger Station
Barkhamsted
New Hartford
Bakersville
Burlington
Burlington (nr)
Collinsville
Collinsville IS.
River Glen
Bristol
Bristol 3
Forestville
Torrington
Torrington 2
Norfolk 2 sw
Granby
Granby (nr)
Tariffville
Rainbow
Windsor
Hartford W.B. Airport
Bloomfield
Newington
West Hartford
Hartford
Hartford Brainard Field
Wigwam Reservoir
Thomaston
Shuttle Meadow Reservoir
L-1
L-2
L-3
L-4
L-5
B
C
D
E
F
C O N N
42° 00' 00"
41° 45' 00"
73° 00' 00"
72° 45' 00"
SCALE IN MILES
1 0 1 2 3
Plate 4

proceeding downstream:
Lt. Side - present condition (1960)
Rt. Side - highest use class.

Classifications Approved by
New England Interstate Water Pollution
Control Commission

LEGEND
- - - Sub Area Boundaries
○ Non-Recording Rainfall Gage
● Recording Rainfall Gage
● Both Types Rainfall Gage
✧ Precipitation and Temperature
⊕ Complete Meteorological Station
▨ Natural Storage Area
▼ U.S.G.S. Gage (Recording)

REVISION	DATE	DESCRIPTION	BY

CORPS OF ENGINEERS, U. S. ARMY
OFFICE OF THE DIVISION ENGINEER
NEW ENGLAND DIVISION
WALTHAM, MASS.

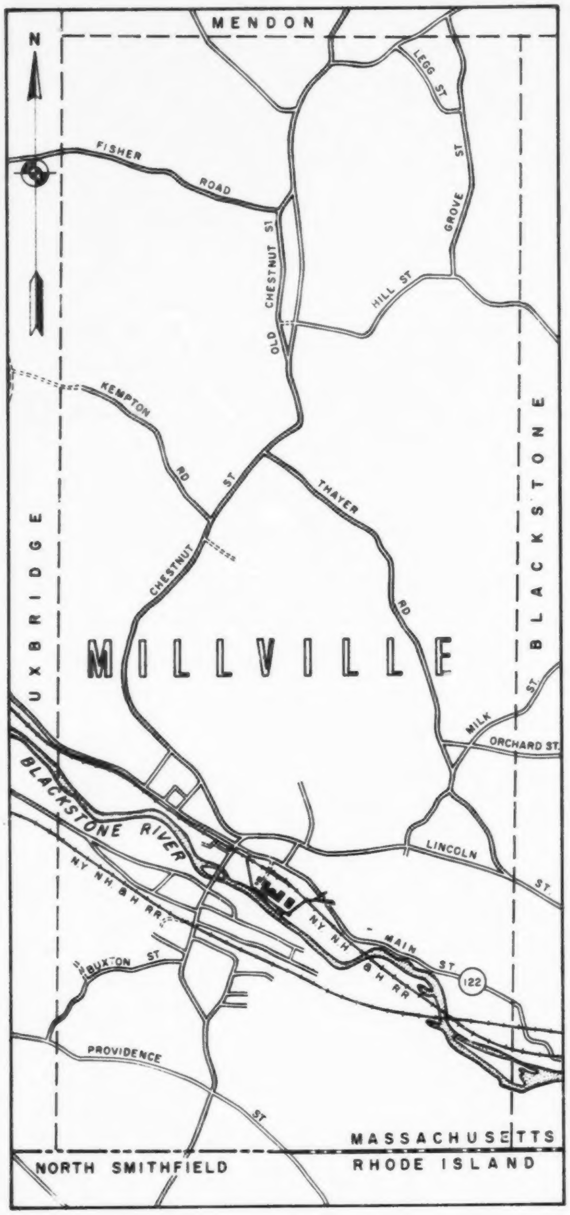
DR BY	TR BY	CK BY
S F C	G W S	G F B

E. F. Chiccs
CHIEF HYD & HYD SECTION
SUBMITTED BY
CHIEF, PLANNING BRANCH
APPROVED
CHIEF ENGINEERING DIV

CONNECTICUT RIVER FLOOD CONTROL
FARMINGTON RIVER BASIN
BASIN MAP
FARMINGTON RIVER, CONN. & MASS.

APPROVED
LT COL CE, ASST TO DIVISION ENGINEER
DATE MARCH 1958
SCALE AS SHOWN

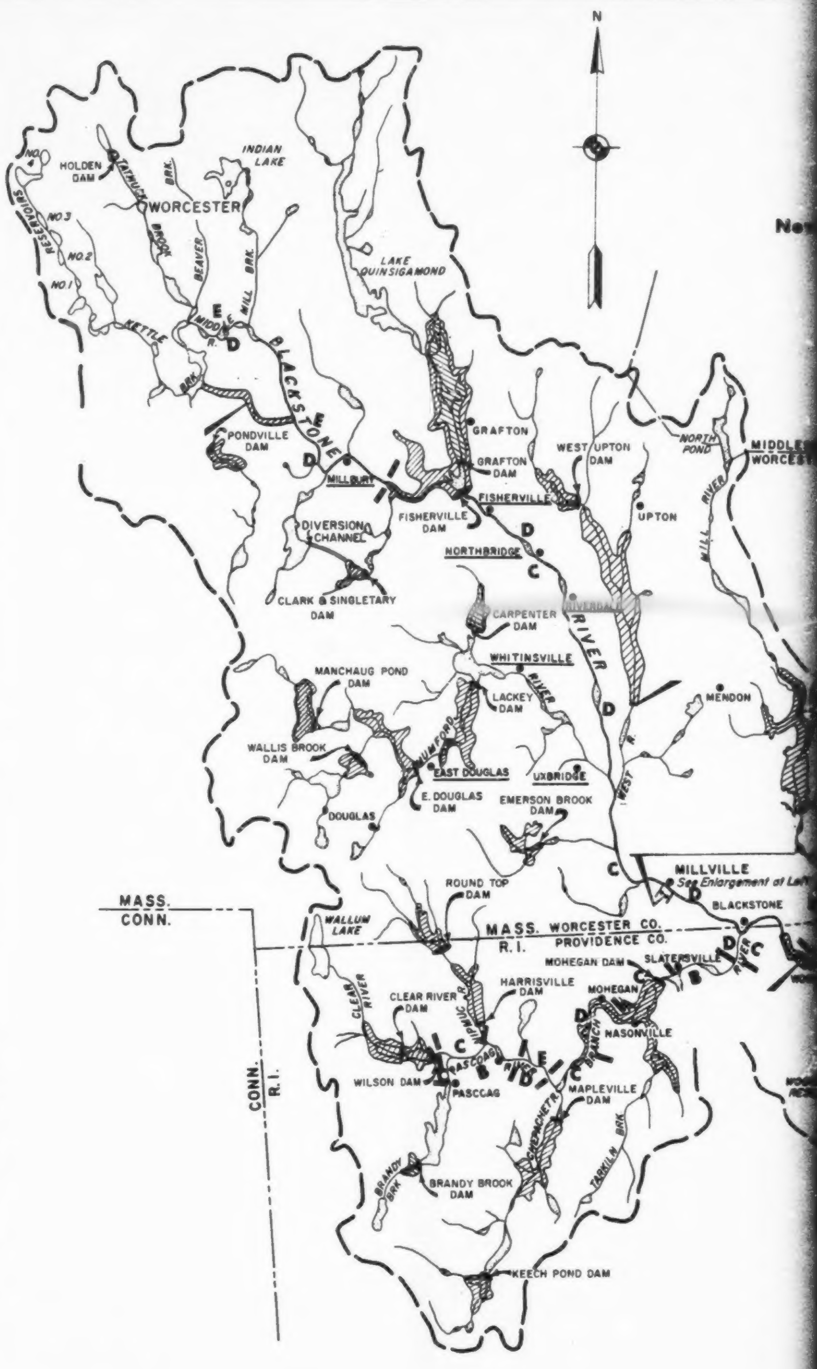
CORPS OF ENGINEERS


N
MENDON
LEGG ST
FISHER ROAD
GROVE ST
OLD CHESTNUT ST
HILL ST
KEMPTON RD
CHESTNUT ST
THAYER RD
UXBRIDGE
MILLVILLE
BLACKSTONE
MILK ST
ORCHARD ST
BLACKSTONE RIVER
LINCOLN ST
NY NH & H RR
MAIN ST
122
BUXTON ST
PROVIDENCE ST
MASSACHUSETTS
RHODE ISLAND
NORTH SMITHFIELD

VICINITY MAP

SCALE IN FEET

1000 500 0 1000

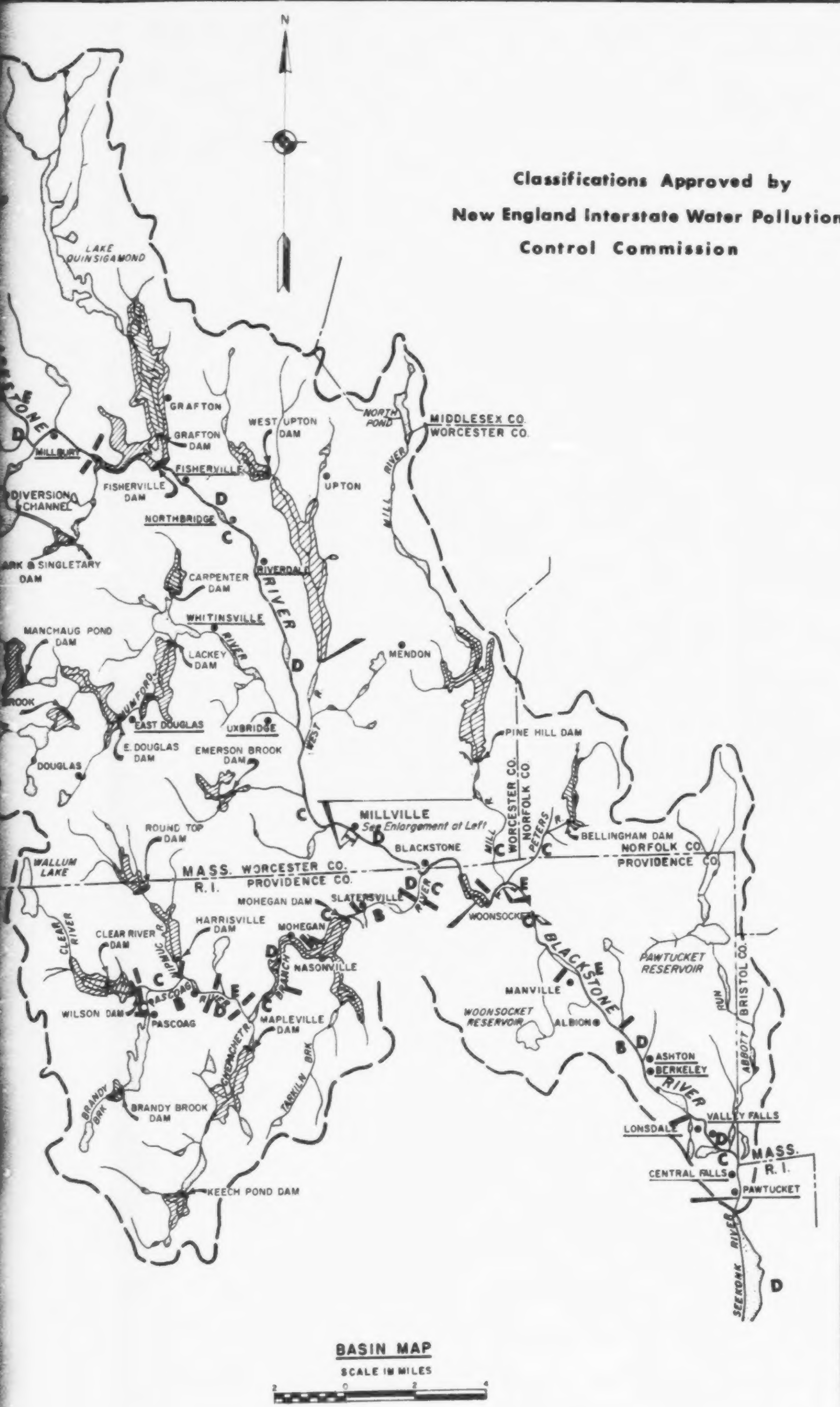

N
NO.4
RESERVOIRS
NO.3
NO.2
NO.1
HOLDEN DAM
TATNUCK BRK.
INDIAN LAKE
WORCESTER
BEAVER BROOK
MILL BRK.
KETTLE BRK.
MIDDLE R.
BLACKSTONE
LAKE QUINSIGAMOND
PONDVILLE DAM
MILLBURY
DIVERSION CHANNEL
CLARK & SINGLETARY DAM
GRAFTON
GRAFTON DAM
FISHERVILLE DAM
FISHERVILLE
NORTHBRIDGE
WEST UPTON DAM
UPTON
NORTH POND
MIDDLESEX
WORCESTER
MILL RIVER
CARPENTER DAM
RIVERDALE
RIVER
WHITINSVILLE
MANCHAUG POND DAM
LACKEY DAM
MUMFORD RIVER
WALLIS BROOK DAM
EAST DOUGLAS
E. DOUGLAS DAM
UXBRIDGE
EMERSON BROOK DAM
DOUGLAS
WEST R.
MENDON
MILLVILLE
See Enlargement at Left
BLACKSTONE
MASS.
CONN.
ROUND TOP DAM
WALLUM LAKE
MASS. WORCESTER CO.
R.I. PROVIDENCE CO.
MOHEGAN DAM
SLATERSVILLE
RIVER
HARRISVILLE DAM
MOHEGAN
CLEAR RIVER DAM
CLEAR RIVER
NASONVILLE
CHEPACHET RIVER
BRANCH
PASCOAG R.
WILSON DAM
PASCOAG
MAPLEVILLE DAM
CONN.
R.I.
BRANDY BRK.
BRANDY BROOK DAM
TARKILN BRK.
KEECH POND DAM
A
B
C
D
E

BASIN MAP

SCALE IN MILES

2 0 2

Classifications Approved by
New England Interstate Water Pollution
Control Commission


N
LAKE QUINSIGAMOND
GRAFTON
GRAFTON DAM
WEST UPTON DAM
NORTH POND
MIDDLESEX CO.
WORCESTER CO.
MILLBURY
FISHERVILLE
FISHERVILLE DAM
DIVERSION CHANNEL
UPTON
MILL RIVER
NORTHBRIDGE
RIVERDALE
ARK & SINGLETARY DAM
CARPENTER DAM
WHITINSVILLE
MANCHAUG POND DAM
LACKEY DAM
MUMFORD RIVER
MENDON
WEST RIVER
EAST DOUGLAS
UXBRIDGE
E. DOUGLAS DAM
EMERSON BROOK DAM
DOUGLAS
PINE HILL DAM
WORCESTER CO.
NORFOLK CO.
MILLVILLE
See Enlargement at Left
ROUND TOP DAM
WALLUM LAKE
BLACKSTONE
PETERS R.
BELLINGHAM DAM
NORFOLK CO.
PROVIDENCE CO.
MASS. WORCESTER CO.
R.I. PROVIDENCE CO.
MOHEGAN DAM
SLATERSVILLE
MOHEGAN
HARRISVILLE DAM
WOONSOCKET
CLEAR RIVER
CLEAR RIVER DAM
CHEPACHET
BRANCH RIVER
NASONVILLE
PASCOAG RIVER
PAWTUCKET RESERVOIR
BLACKSTONE RIVER
BRISTOL CO.
WILSON DAM
PASCOAG
MAPLEVILLE DAM
MANVILLE
WOONSOCKET RESERVOIR
ALBION
ABBOTT RUN
ASHTON
BERKELEY
BRANDY BRK
BRANDY BROOK DAM
TARKILN BRK
LONSDALE
VALLEY FALLS
MASS.
R.I.
CENTRAL FALLS
PAWTUCKET
KEECH POND DAM
SEEKONK RIVER
A
B
C
D
E
BASIN MAP
SCALE IN MILES
2 0 2 4

N
CANADA
MONTPELIER
VERMONT
NEW HAMPSHIRE
MAINE
CONCORD
NEW YORK
MASS
ATLANTIC OCEAN
BLACKSTONE R. BASIN
WORCESTER
BOSTON
HARTFORD
PROVIDENCE
CONN.
R.I.

LOCATION MAP
SCALE IN MILES
25 0 25 50

proceeding downstream:
Lt. Side - present condition (1958)
Rt. Side - highest use class.

REVISION	DATE	DESCRIPTION	BY

U.S. ARMY ENGINEER DIVISION, NEW ENGLAND
CORPS OF ENGINEERS
WALTHAM, MASS

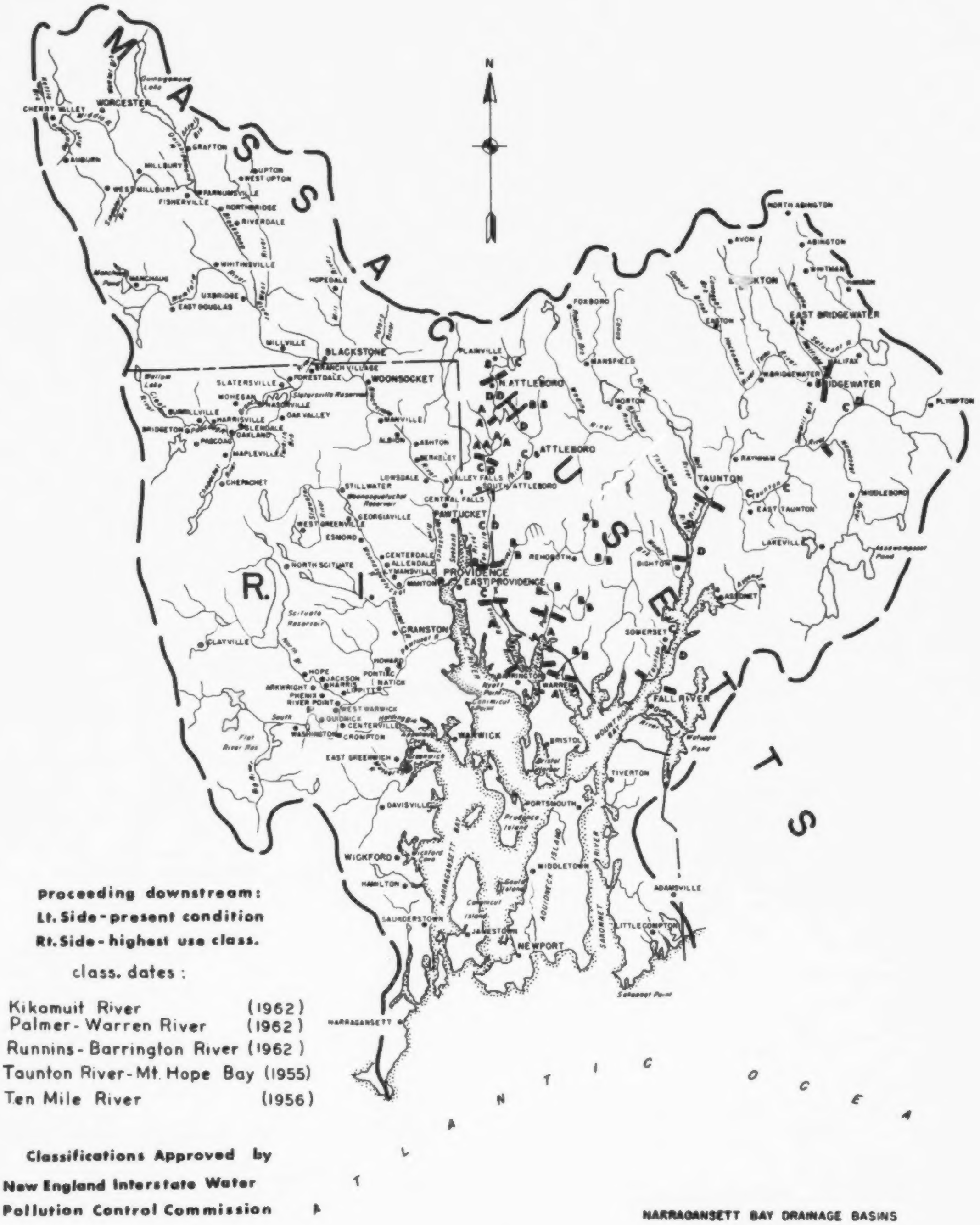
DR. BY L.R.M. | TR. BY | CK. BY

BLACKSTONE RIVER FLOOD CONTROL
BLACKSTONE RIVER BASIN
BASIN & VICINITY MAPS

ENGINEER
PROJECT ENGINEER
CHIEF SECTION
SUBMITTED BY
CHIEF, PLANG & RPTS BRANCH

BLACKSTONE RIVER MASS. & R.I.
APPROVED DATE
CHIEF ENGINEERING DIV.
SCALE: AS SHOWN
SHEET

Plate 5


N
MASSACHUSETTS
R. I.
ATLANTIC OCEAN
WORCESTER
CHERRY VALLEY
AUBURN
MILLBURY
GRAFTON
UPTON
WEST UPTON
WEST MILLBURY
FARNUMSVILLE
FISHERVILLE
NORTHBRIDGE
RIVERDALE
WHITINSVILLE
HOPEDALE
UXBRIDGE
EAST DOUGLAS
MILLVILLE
BLACKSTONE
WOONSOCKET
SLATERSVILLE
FORESTDALE
MOHEGAN
PASCOAG
BURRILLVILLE
HARRISVILLE
GLENDALE
OAKLAND
OAK VALLEY
MAPLEVILLE
CHEPACHET
MANVILLE
ALBION
ASHTON
BERKELEY
LONSDALE
VALLEY FALLS
CENTRAL FALLS
STILLWATER
GEORGIAVILLE
WEST GREENVILLE
ESMOND
CENTERDALE
ALLENDALE
NORTH SCITUATE
PAWTUCKET
PROVIDENCE
EAST PROVIDENCE
CRANSTON
CLAYVILLE
Scituate Reservoir
HOPE
JACKSON
HARRIS
LIPPITT
PONTIAC
NATICK
ARKWRIGHT
PHENIX
RIVER POINT
WEST WARWICK
QUIDNICK
CENTERVILLE
CROMPTON
WASHINGTON
WARWICK
EAST GREENWICH
DAVISVILLE
WICKFORD
HAMILTON
SAUNDERSTOWN
JAMESTOWN
NARRAGANSETT
PLAINVILLE
N. ATTLEBORO
ATTLEBORO
SOUTH ATTLEBORO
FOXBORO
MANSFIELD
NORTON
REHOBOTH
DIGHTON
TAUNTON
EAST TAUNTON
RAYNHAM
LAKEVILLE
MIDDLEBORO
ASSONET
SOMERSET
FALL RIVER
BARRINGTON
WARREN
BRISTOL
TIVERTON
PORTSMOUTH
MIDDLETOWN
NEWPORT
ADAMSVILLE
LITTLE COMPTON
Prudence Island
Conanicut Island
AQUIDNECK ISLAND
SAKONNET RIVER
MOUNT HOPE BAY
Sakonnet Point
NORTH ABINGTON
ABINGTON
AVON
BROCKTON
WHITMAN
HANSON
EASTON
EAST BRIDGEWATER
HALIFAX
W. BRIDGEWATER
BRIDGEWATER
PLYMPTON
Assawompsett Pond
Watuppa Pond
Slatersville Reservoir

Proceeding downstream:

Lt. Side - present condition

Rt. Side - highest use class.

class. dates :

Kikamuit River	(1962)
Palmer - Warren River	(1962)
Runnins - Barrington River	(1962)
Taunton River - Mt. Hope Bay	(1955)
Ten Mile River	(1956)

Classifications Approved by
New England Interstate Water
Pollution Control Commission

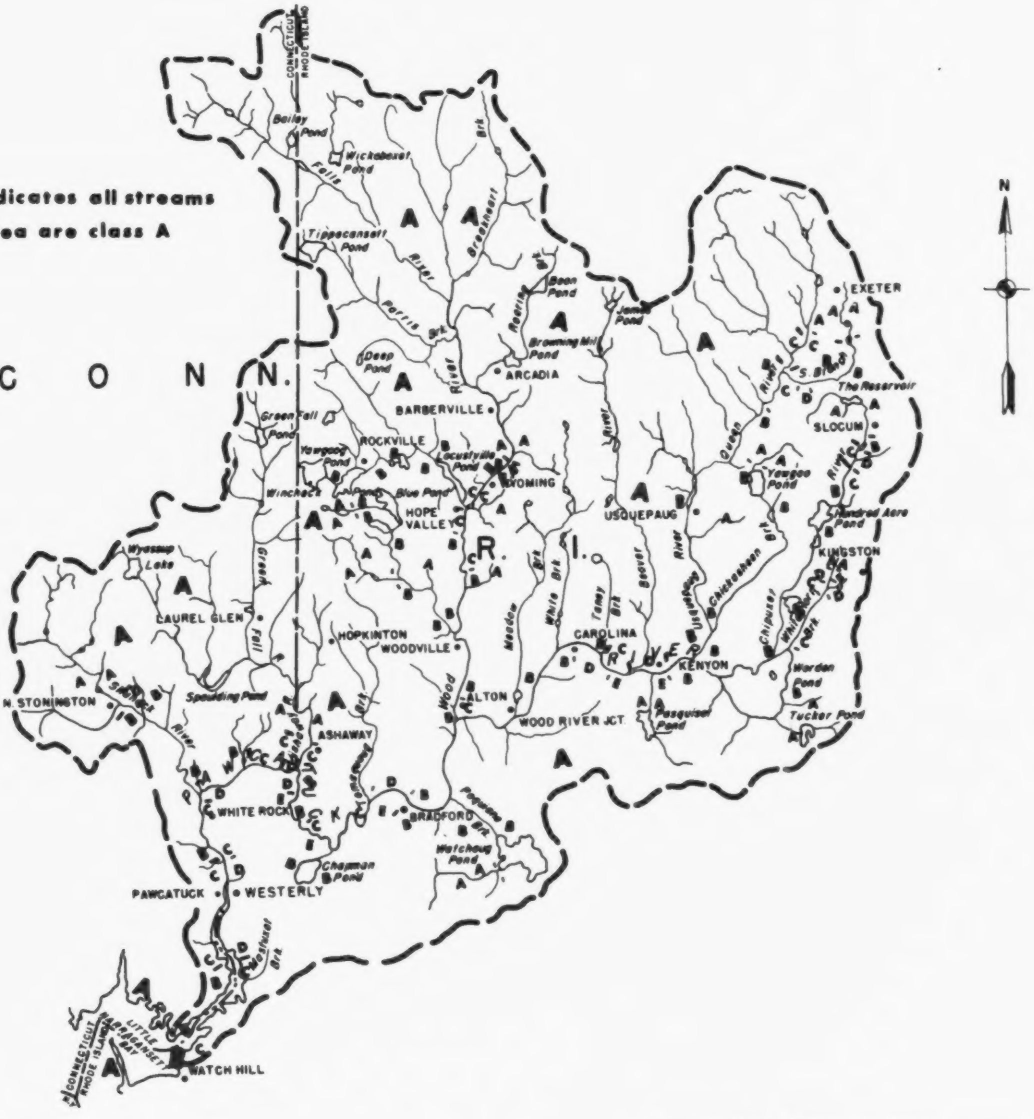
NARRAGANSETT BAY DRAINAGE BASINS

NEW ENGLAND NEW YORK INTER-AGENCY COMMITTEE
MAY 1954.
SCALE IN MILES
4 0 4 8

D H E W P H S W P C BOSTON, MAY 1954

Plate 6

'A' indicates all streams in area are class A


CONNECTICUT
RHODE ISLAND
Bailey Pond
Wickaboxet Pond
Falls River
Tippecansett Pond
Parris Brk
Breakheart Brk
Roaring Brk
Boon Pond
Browning Mill Pond
Deep Pond
ARCADIA
BARBERVILLE
Wood River
James Pond
EXETER
N
The Reservoir
SLOCUM
Queen River
Yawgoo Pond
Hundred Acre Pond
KINGSTON
Chickasheen Brk
Chipuxet River
Worden Pond
Tucker Pond
C O N N.
Green Fall Pond
Yawgoog Pond
ROCKVILLE
Locustville Pond
Wincheck Pond
Blue Pond
HOPE VALLEY
WYOMING
USQUEPAUG
R. I.
Wyassup Lake
LAUREL GLEN
Green Fall River
HOPKINTON
WOODVILLE
Meadow Brk
White Brk
Taney Brk
Beaver River
Usquepaug River
CAROLINA
RIVER
KENYON
N. STONINGTON
Shunock River
Spaulding Pond
ASHAWAY
ALTON
WOOD RIVER JCT.
Pasquiset Pond
PAWCATUCK
WHITE ROCK
Ashaway River
Canonchet Brk
Perry Brk
Pasquiset Brk
BRADFORD
Watchaug Pond
Chapman Pond
PAWCATUCK
WESTERLY
Mastuxet Brk
LITTLE NARRAGANSETT BAY
WATCH HILL
A
B
C
D
E

proceeding downstream:

Lt. Side- present condition (1952)

Rt. Side- highest use class.

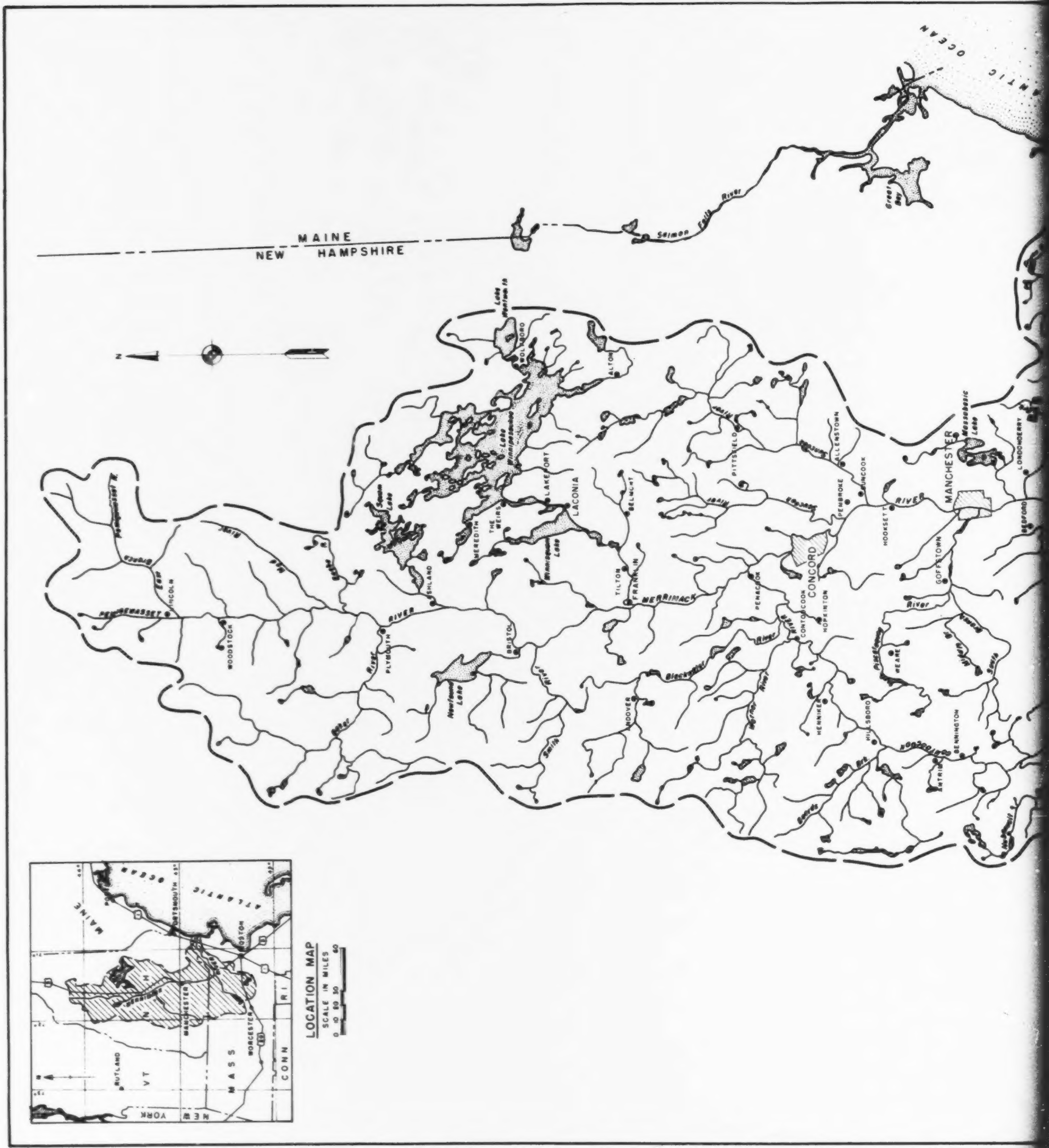
Classifications Approved by New England Interstate Water Pollution Control Commission

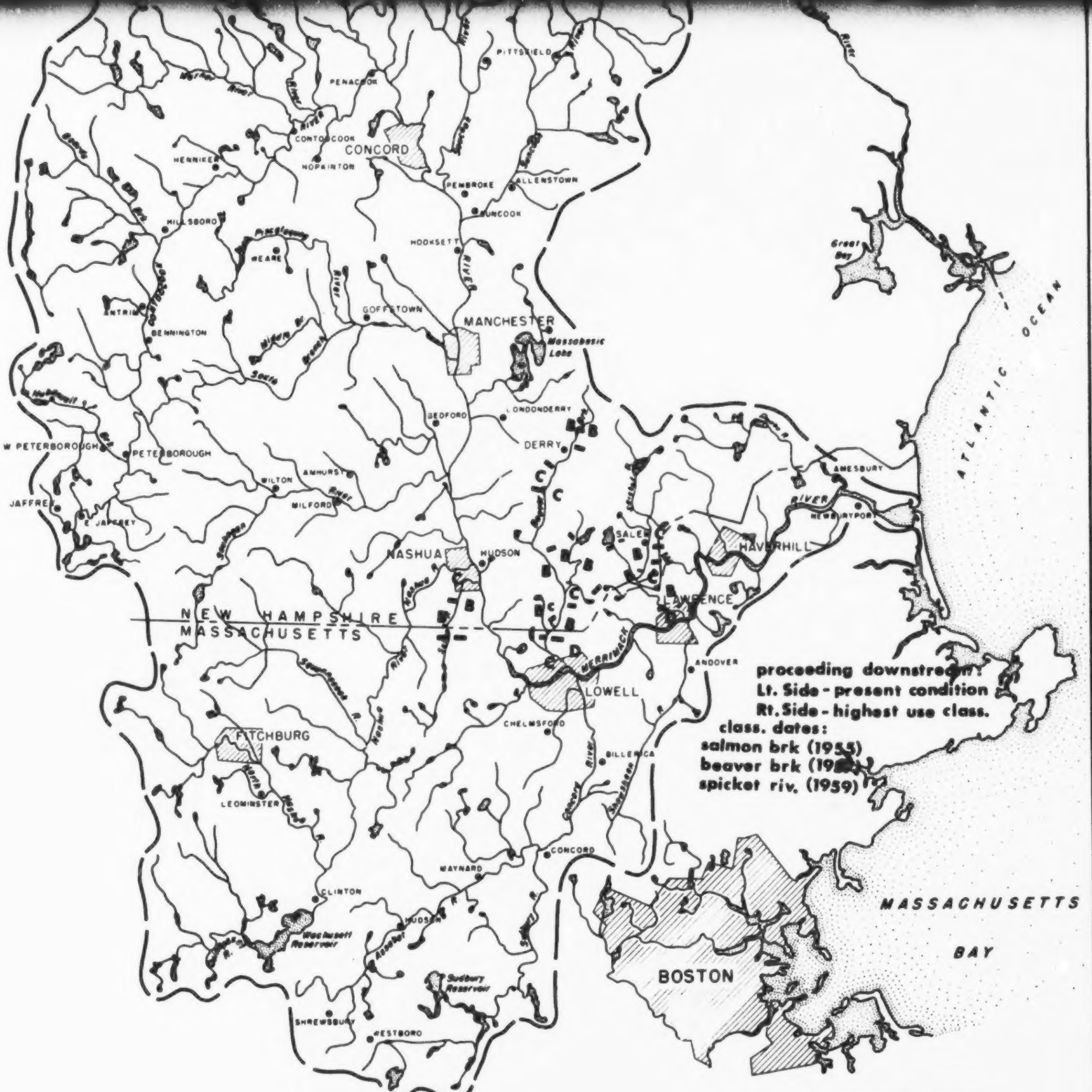
PAWCATUCK RIVER BASIN

NEW ENGLAND NEW YORK INTER—AGENCY COMMITTEE
MAY 1954
SCALE IN MILES
0 1 2 3

Plate 7

D H E W P H S W P C BOSTON, MAY 1954


ATLANTIC OCEAN
MAINE
NEW HAMPSHIRE
Salmon Falls River
Great Bay
N
Lake Winnipesaukee
Squam Lake
Newfound Lake
Winnisquam Lake
Massabesic Lake
Lake Wentworth
WOLFEBORO
ALTON
LAKEPORT
LACONIA
THE WEIRS
MEREDITH
BELMONT
TILTON
FRANKLIN
MERRIMACK
ASHLAND
BRISTOL
PLYMOUTH
WOODSTOCK
LINCOLN
PEMIGEWASSET
RIVER
Baker River
Smith River
Blackwater
PITTSFIELD
ALLENSTOWN
PEMBROKE
SUNCOOK
CONCORD
PENACOOK
CONTOOCOOK
HOPKINTON
HOOKSETT
MANCHESTER
GOFFSTOWN
BEDFORD
LONDONDERRY
WEARE
HENNIKER
HILLSBORO
BENNINGTON
ANTRIM
Piscataquog
DANBURY
ANDOVER
LOCATION MAP
SCALE IN MILES
0 10 20 30 40
MAINE
ATLANTIC OCEAN
PORTSMOUTH
BOSTON
MANCHESTER
WORCESTER
N H
VT
RUTLAND
MASS
CONN
R I
NEW YORK


ATLANTIC OCEAN
MASSACHUSETTS BAY
Great Bay
River
PITTSFIELD
PENACOOK
CONTOOCOOK
CONCORD
HOPKINTON
HENNIKER
PEMBROKE
ALLENSTOWN
SUNCOOK
HOOKSETT
HILLSBORO
WEARE
ANTRIM
BENNINGTON
GOFFSTOWN
MANCHESTER
Massabesic Lake
LONDONDERRY
BEDFORD
DERRY
W PETERBOROUGH
PETERBOROUGH
JAFFREY
E JAFFREY
WILTON
AMHURST
MILFORD
NASHUA
HUDSON
SALEM
HAVERHILL
AMESBURY
NEWBURYPORT
MERRIMACK
RIVER
LAWRENCE
ANDOVER
LOWELL
CHELMSFORD
BILLERICA
NEW HAMPSHIRE
MASSACHUSETTS
FITCHBURG
LEOMINSTER
CONCORD
MAYNARD
CLINTON
Wachusett Reservoir
HUDSON
Sudbury Reservoir
SHREWSBURY
WESTBORO
BOSTON
B
C

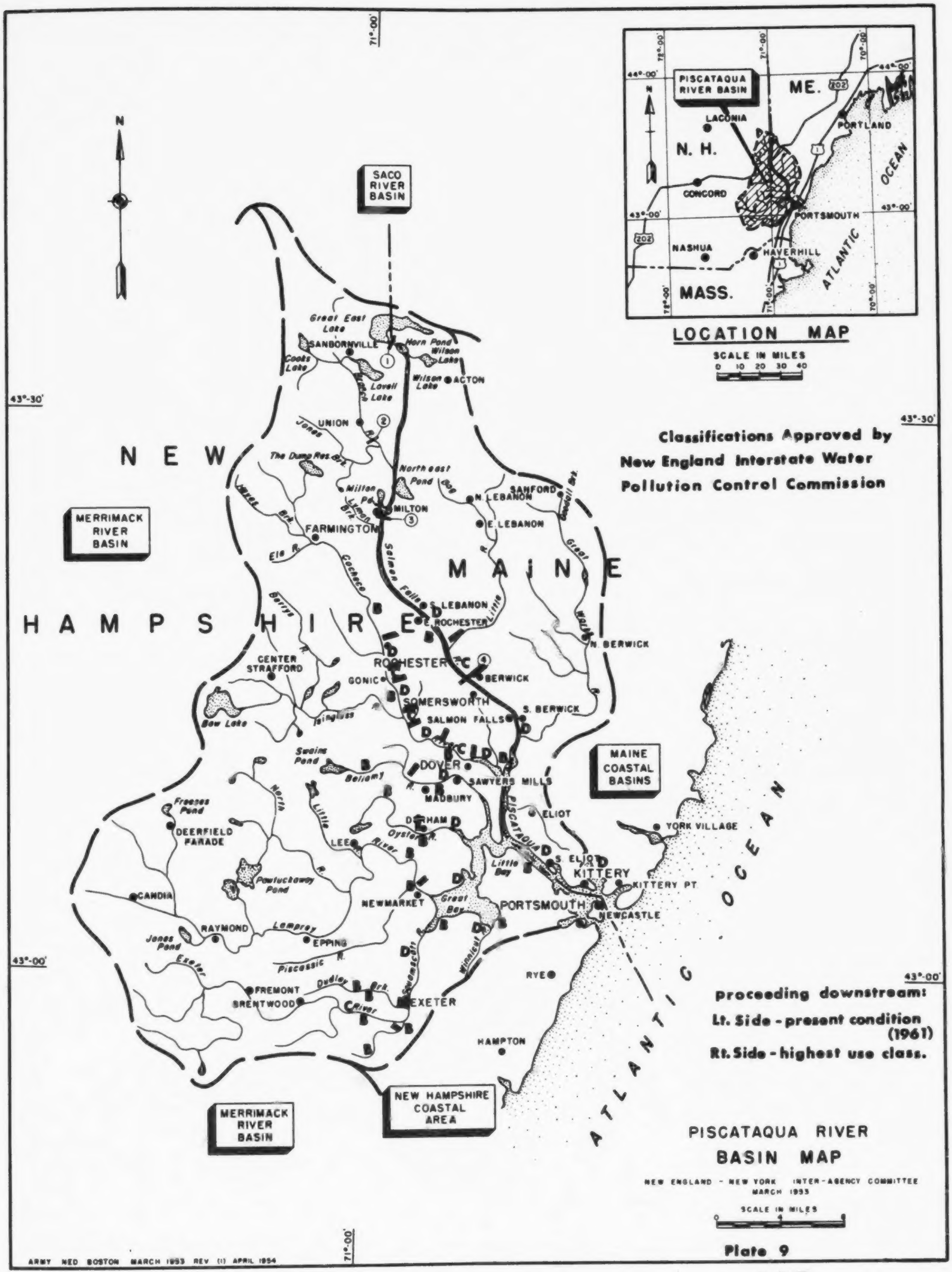
proceeding downstream:
Lt. Side - present condition
Rt. Side - highest use class.
class. dates:
salmon brk (1955)
beaver brk (19[illegible])
spicket riv. (1959)

Classifications Approved by
New England Interstate Water Pollution Control Commission

MERRIMACK RIVER
BASIN MAP
NEW ENGLAND NEW YORK INTER-AGENCY COMMITTEE
SEPT 1954
SCALE IN MILES
4 0 4 8

ARMY NED BOSTON SEPT. 1954

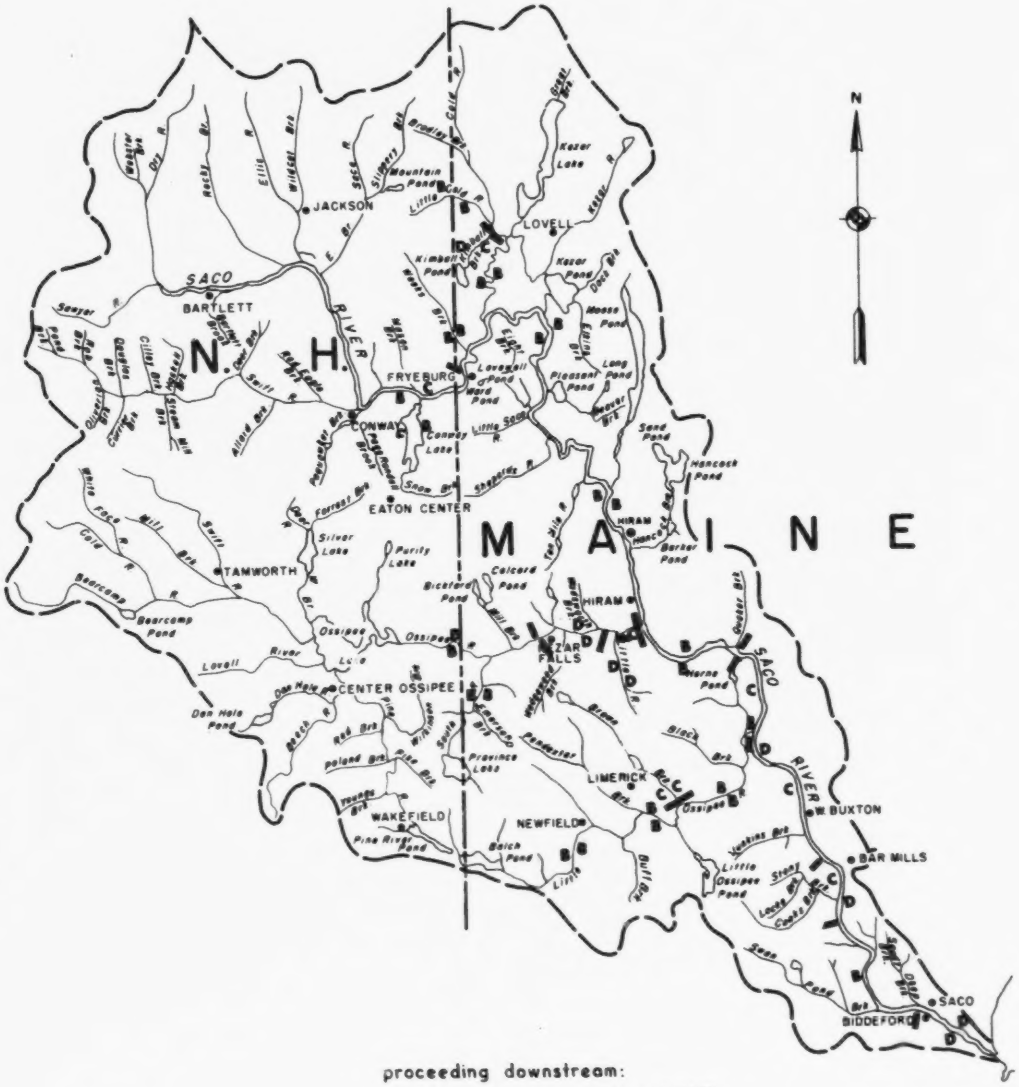
PLATE 8


SACO RIVER BASIN
MERRIMACK RIVER BASIN
MERRIMACK RIVER BASIN
NEW HAMPSHIRE COASTAL AREA
MAINE COASTAL BASINS
NEW HAMPSHIRE
MAINE
ATLANTIC OCEAN
Great East Lake
SANBORNVILLE
Horn Pond
Wilson Lake
Cooks Lake
Lovell Lake
Wilson Lake
ACTON
UNION
Jones
The Dump Res.
Northeast Pond
Milton Pd.
MILTON
FARMINGTON
N. LEBANON
SANFORD
E. LEBANON
Ela R.
Cocheco
Salmon Falls
Berrys
S. LEBANON
E. ROCHESTER
Little
Great Works
N. BERWICK
CENTER STRAFFORD
ROCHESTER
GONIC
BERWICK
SOMERSWORTH
SALMON FALLS
S. BERWICK
Bow Lake
Isinglass
Swains Pond
Bellamy
DOVER
SAWYERS MILLS
MADBURY
Freeses Pond
DEERFIELD PARADE
North
Little
DURHAM
Oyster R.
LEE
River
PISCATAQUA
ELIOT
YORK VILLAGE
S. ELIOT
KITTERY
KITTERY PT.
Little Bay
Pawtuckaway Pond
CANDIA
NEWMARKET
Great Bay
PORTSMOUTH
NEWCASTLE
RAYMOND
Jones Pond
Lamprey
EPPING
Piscassic R.
Exeter
FREMONT
Dudley Brk.
BRENTWOOD
River
EXETER
Squamscott
Winnicut R.
RYE
HAMPTON
43°-30'
43°-00'
71°-00'
N
PISCATAQUA RIVER BASIN
ME.
N. H.
MASS.
LACONIA
CONCORD
NASHUA
HAVERHILL
PORTSMOUTH
PORTLAND
ATLANTIC OCEAN
44°-00'
43°-00'
72°-00'
71°-00'
70°-00'
202
1
LOCATION MAP
SCALE IN MILES
0 10 20 30 40
Classifications Approved by New England Interstate Water Pollution Control Commission
proceeding downstream:
Lt. Side - present condition (1961)
Rt. Side - highest use class.
A
B
C
D
SCALE IN MILES
ARMY NED BOSTON MARCH 1953 REV (1) APRIL 1954

PISCATAQUA RIVER
BASIN MAP

NEW ENGLAND - NEW YORK INTER-AGENCY COMMITTEE
MARCH 1953

Plate 9


N
N. H.
M A I N E
SACO
RIVER
JACKSON
LOVELL
BARTLETT
FRYEBURG
CONWAY
EATON CENTER
TAMWORTH
HIRAM
KEZAR FALLS
CENTER OSSIPEE
LIMERICK
W. BUXTON
BAR MILLS
WAKEFIELD
NEWFIELD
SACO
BIDDEFORD
Kezar Lake
Kezar Pond
Mountain Pond
Kimball Pond
Moose Pond
Long Pond
Pleasant Pond
Lovewell Pond
Ward Pond
Conway Lake
Sand Pond
Hancock Pond
Barker Pond
Silver Lake
Purity Lake
Bickford Pond
Colcord Pond
Bearcamp Pond
Ossipee Lake
Dan Hole Pond
Horne Pond
Province Lake
Balch Pond
Pine River Pond
Little Ossipee Pond

proceeding downstream:
Lt. Side- present condition (1957)
Rt. Side- highest use class.

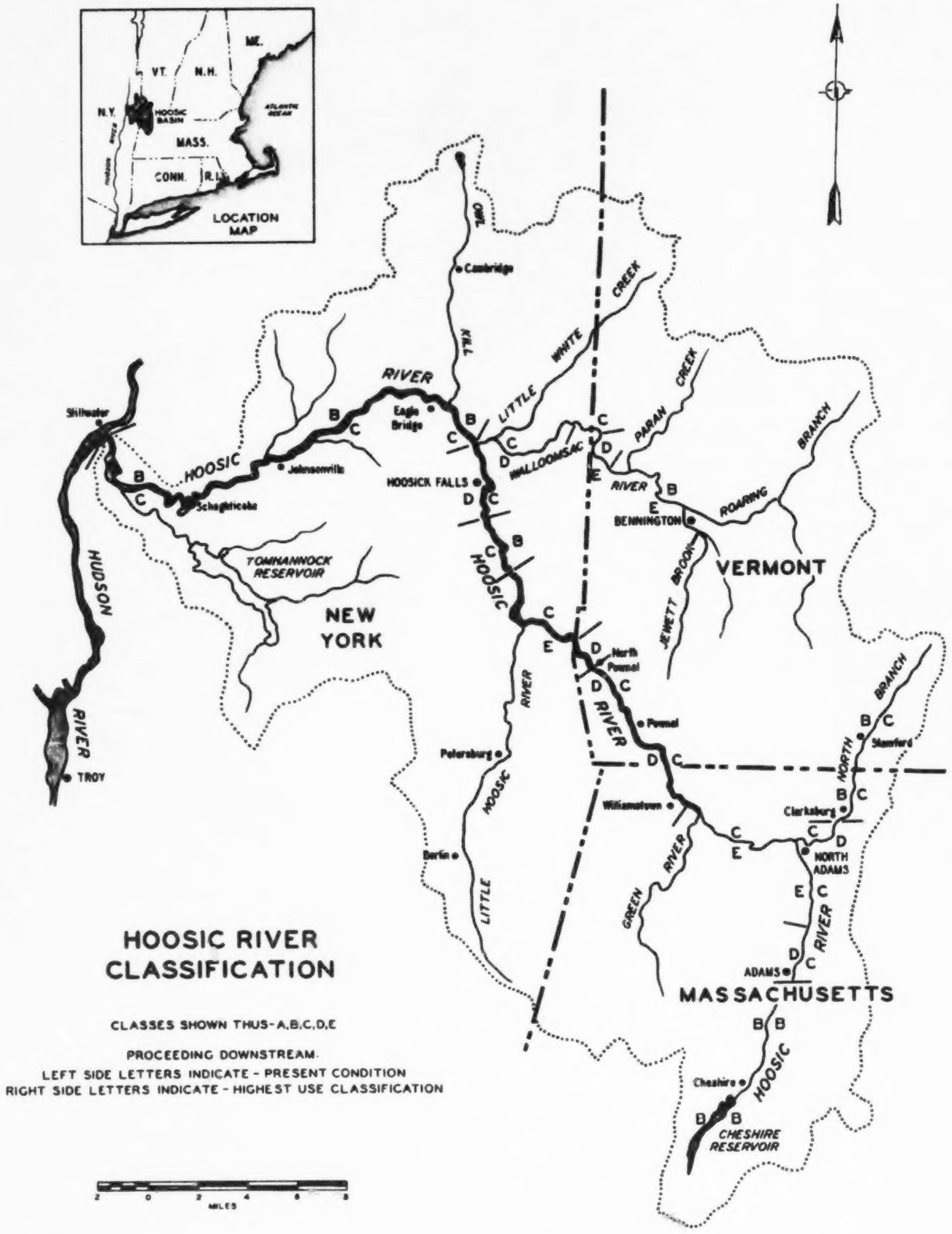
Classifications Approved by
New England Interstate Water Pollution Control Commission

SACO RIVER BASIN

NEW ENGLAND NEW YORK INTER-AGENCY COMMITTEE
DECEMBER 1952
SCALE IN MILES

Plate 10

DHEW PHS WPC BOSTON, DEC 1952 REV (1) APRIL 1954



HOOSIC RIVER
CLASSIFICATION
CLASSES SHOWN THUS - A,B,C,D,E
PROCEEDING DOWNSTREAM.
LEFT SIDE LETTERS INDICATE - PRESENT CONDITION
RIGHT SIDE LETTERS INDICATE - HIGHEST USE CLASSIFICATION
LOCATION MAP
ME.
VT.
N.H.
N.Y.
HOOSIC BASIN
ATLANTIC OCEAN
MASS.
CONN.
R.I.
NEW YORK
VERMONT
MASSACHUSETTS
HUDSON RIVER
HOOSIC RIVER
OWL KILL
LITTLE WHITE CREEK
WALLOOMSAC RIVER
PARAN CREEK
ROARING BRANCH
JEWETT BROOK
TOMHANNOCK RESERVOIR
LITTLE HOOSIC RIVER
GREEN RIVER
NORTH BRANCH
CHESHIRE RESERVOIR
Stillwater
Johnsonville
Schaghticoke
Eagle Bridge
Cambridge
HOOSICK FALLS
BENNINGTON
North Pownal
Pownal
Petersburg
Williamstown
Berlin
Stamford
Clarksburg
NORTH ADAMS
ADAMS
Cheshire
TROY
MILES
2
0
2
4
6
8